

REPORT
OF
METROPOLITAN PARK COMMISSION

1908 DECEMBER

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REPORT

OF THE

BOARD OF METROPOLITAN PARK COMMISSIONERS.

JANUARY, 1909.



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OFFICERS.

Commissioners.

WILLIAM B. DE LAS CASAS, *Chairman.*

EDWIN U. CURTIS.

DAVID N. SKILLINGS.

ELLERTON P. WHITNEY.

EVERETT C. BENTON.

Landscape Architects.

Advisory.

OLMSTED BROTHERS.

Engineer.

JOHN R. RABLIN.

Law and Claims.

GEORGE LYMAN ROGERS.

Secretary.

JOHN WOODBURY.

OFFICES, 14 Beacon Street, Boston, Mass.

The Commonwealth of Massachusetts.

REPORT.

The Metropolitan Park Commission presents herewith its sixteenth annual report.

An addition to the Metropolitan Park System of greatest importance has been made during the past year by the acquirement of lands along Alewife Brook. This acquirement has been made primarily to provide for the purification of the brook as directed by chapter 529 of the Acts of 1907, and in accordance with an agreement between the cities of Cambridge and Somerville and the towns of Arlington and Belmont, by which the cost of the improvement, to the amount of \$125,000, above the cost of the land is to be paid for by those cities and towns. At the same time sufficient additional land has been acquired, under the general powers of the Board, to provide for a parkway from Mystic River to Spy Pond, and plans and papers are now being prepared for an acquirement connecting the lands along Alewife Brook with the Cambridge water and park lands about Fresh Pond. These last, with the driveways already built through them, connect with Fresh Pond Parkway and the lands and driveways along Charles River already provided by this Board, and all taken together will provide for an improvement of far-reaching importance. The purification of the brook has already begun at its outlet into Mystic River, and will be continued during the coming year, and when completed will drain and purify the most unsanitary section of the Metropolitan District; unite Mystic Lake, Mystic River, Alewife Brook and Spy Pond into one set of waterways available for all water and ice sports; and bring much almost worthless water-soaked land into condition for the most profitable

kinds of market gardening. The parkway connection which will also be provided will connect the western part of the District, and the Charles River Driveways from Boston and Cambridge, with the Mystic River Driveway and the parkways to the Fells and northerly towns, and with the parkways leading to Revere Beach and the North Shore. The investigations and reports, and legislation and agreements leading to these acquirements represent the work of many years, not only by this and other boards, but also by an interested public. The determined effort of private citizens in co-operation with the Board has resulted in securing options which assure a reasonable and prompt settlement, without law suit, of most of the claims for lands. At one or two points such agreements have not been secured, and in the case of St. Paul's Cemetery in Arlington special legislation like that heretofore given to other boards in similar cases is desirable, because of legal uncertainties in regard to acquiring the small portions of the cemetery which are required for straightening and purifying the brook, transferring graves and making other incidental changes in the cemetery.

In Quincy land known as Rufe's Hummock and the shore and marsh to Black's Creek have been acquired as part of Furnace Brook Parkway. In Revere a small amount of land has been acquired near the junction of Revere Beach Parkway and the Parkway toward Winthrop, to facilitate the construction of the parkway, which is expected to begin in the near future. These and other slight changes in the area of the Metropolitan Parks and Parkways are described in detail in the Secretary's report. There are 9,392.67 acres in the Reservations, and 844.19 acres in the 30.45 miles of Parkways.

Important construction work has been done in the completion of Quincy Shore Driveway. At Mystic River the bridge for passing travel under the southern division of the Boston & Maine Railroad has been completed; the channel of Alewife Brook near its junction with Mystic River has been relocated to conform to plans for the purification of the brook, and a bridge has been built over it for the driveway; and the dam and lock and addition to Cradock Bridge



MIDDLESEX FELLS RESERVATION. — Police Station and Headquarters Building.

have been nearly completed. Mystic River above Cradock Bridge is now non-tidal, and it will be possible to improve and deepen the channel of the river and surface the driveway during the coming year. The extension of Fellsway to provide for electric cars, and the grading of a reserve space and building of a bridge over Brooks Road to avoid crossing at grade, have been completed, so that no work now remains to be done by this Board to enable the Boston Elevated Company to begin running cars as far as the Stoneham line. It may also be noted in this connection that beyond the Stoneham line a location for electric cars to South Street in Stoneham has been granted to the Boston & Northern Street Railway Company, and accepted by that company.

Middlesex Fells Division includes, beside the Reservation and Parkway of that name, Mystic Valley Parkway, Mystic River Reservation and Lynn Fells Parkway. It has heretofore had inadequate police and general headquarters. The construction of the electric car line and the probability that a greatly increased number of people will resort to the Reservation have required the construction of a new building adequate for present and apparent future needs, and of equal convenience with the headquarters buildings already provided for other divisions. This new building, centrally located near Pine Hill and the new car line, will be ready for occupancy during the winter. It will include, beside accommodations for the police, an emergency room and toilet rooms for men and women, and a storage place for plans and books not required for immediate use at the general office in Boston. A stable has been added to the Nahant Beach headquarters, and a new stable with sub-station for police and general work is being built on Randolph Avenue for the central portion of Blue Hills Reservation. A short piece of sea wall has been built at Winthrop Highlands, to prevent further inroad by the sea.

The acquirements and construction above noted as additions to the Metropolitan Park System have been made at the expense of loan funds. During the coming year the roadway already subgraded along the front of the United States Arsenal at Watertown over land contributed by the United

States will be surfaced; Mystic River Driveway will be subgraded from Mystic Lake to Cradock Bridge; the channel of Alewife Brook will be relocated, straightened and deepened; and a short piece of parkway will be constructed over land largely given by the Revere Beach & Lynn Railroad from Revere Beach to Leverett Avenue. This work will exhaust all of the loans not required as a reserve for unsettled land claims. The claims for lands acquired prior to 1908 are inconsiderable, and only two are in suit. The claims arising out of takings recently made along Alewife Brook are mostly covered by options. It must be considered, therefore, that all the balance of loan appropriations will be required for present obligations. The present general condition of the loans is shown by the following table:—

Metropolitan Parks Loan:—

Appropriations and receipts,	\$9,033,334 01
Expenditures,	8,732,134 12
<hr/>	
Balance in hands of State Treasurer, . .	\$301,199 89

Metropolitan Parks Loan, Series II.:—

Appropriations and receipts,	\$5,164,907 41
Expenditures,	4,875,193 95
<hr/>	
Balance in hands of State Treasurer, . .	\$289,713 46

Nantasket Beach Loan:—

Appropriations and receipts,	\$705,881 50
Expenditures,	705,881 50

Details of expenditure during the past year and the distribution among reservations and parkways of expenditures against the loans in previous years are given in the Secretary's report, as usual.

Maintenance of the reservations during the past year, while presenting few new problems, has presented some of the old problems in new form or in forms of increased importance. They will be best understood after a brief consideration of the organization and work of the Board.

The reservations and parkways of the Metropolitan Park System are grouped for convenience of superintendence into the following divisions: Middlesex Fells, Revere Beach, Charles River — two sections, Speedway and Riverside, Blue Hills, Nantasket and Beaver Brook. Over each is a Superintendent. In most of the divisions the Superintendent is assisted by such few regular employees as the conditions may require. The number of additional employees varies from time to time, according to the conditions of the work. The best foremen are generally retained without change from year to year. The police form a general force, whose members include one lieutenant and nine sergeants, and for the past year eighty-eight patrolmen. With the opening of new work this number will have to be slightly increased. These are assigned in spring and autumn to the various divisions to serve under the respective Superintendents as Chiefs, and the entire force is administered from the general office. The general office is in charge of the Secretary. Through him all orders are given, and he holds the relation of executive officer of the Board in all departments of its work. The office force is divided into the following departments: Accounts, Records, Purchasing, Paymaster, employing altogether two men and seven women, besides a telephone operator and two office boys; and two departments for special professional work of more independent nature, the Engineering Department with a Chief Engineer and one clerk, and Assistant Engineer and seven assistants, and such other force as may be required by the work in hand; and a Claims and Legal Department, under supervision and approval of the Attorney-General, consisting of one lawyer and a clerk, and such occasional assistants as may be required for claims, titles and minor cases which require the attention of a lawyer, but are not otherwise provided for by the Attorney-General. The Board itself exercises general supervision over the entire work, and is divided into sub-committees, each of which exercises a supervision and inspection of each of the divisions, and of the police and other matters of special importance. The Chairman gives his entire time to the work.

This organization ensures a constant familiarity with all parts of the system and efficient supervision of the work, and at the same time it is sufficiently elastic to provide for contingencies and new work. Its efficiency is shown by the fact that, while the system has increased in area and variety of work, it has yet been possible to reduce the number of persons required for administration, as the work has gradually changed in character from that of acquirement and development to that of maintenance.

The Parks District includes 38 cities and towns, with an area of 400 square miles, besides Cohasset, which is in the District only as being interested in Nantasket Beach. All of these cities and towns are within a radial distance of 13 miles of the State House, and some portion of the Park System is to be found in all but 6 of their number. The reservations and parkways contain upwards of 10,236 acres, of which 7,300 acres are included in the large reservations of rugged woodland, and the balance is made up of small reservations bordering 10 miles of sea shore, 50 miles of the banks of three rivers, and in 30.45 miles of parkways. They include, of constructed work, a speedway, over 100 miles of parkway or boulevard roads, town roads and other forms of pleasure drives; three large and several small bath-houses, numerous small buildings and public-comfort buildings, such as shelters, sanitariums and sub-stations, band stands, and at Nantasket a large hotel with café and pavilions, board walks, dormitories, laundry and power house; thirty bridges of considerable size, of which three are drawbridges; many small bridges and culverts; a dam and lock and various other sluices and forms of river and brook construction; 3 miles of important sea wall; and considerable minor construction along the sea front. The administration of so varied and considerable a work, and the reasonable care of so large and increasingly valuable a property and its adaptation to public convenience, and the protection of the public in its use, is a serious matter.

The work of securing the Metropolitan Parks was begun in 1893. During the intervening fifteen years few changes have occurred in the organization and membership of the



MYSTIC VALLEY PARKWAY.—Construction of Dam and Lock at Gradock Bridge in Medford.

Board and of its chief assistants, and these changes have come so slowly that there has been no break in the continuity and spirit of the work. The members of the Board deeply appreciate the public spirit and consideration which have encouraged them, and the fidelity and efficiency of those who, in many different forms of activity, have assisted in making the work successful. It is but human nature to feel a pride in this work, and to plan for improvements and increases where they seem likely to be of benefit; but this feeling is subdued by the thought of the great amount of taxation which has come to the District through its undertaking to pay for all this great work in forty years, in addition to the yearly cost of its maintenance. The acquirement and development of the system has proceeded economically and sensibly, and all are pleased with the general result. As an asset, its value is greater than its cost; but the full burden of the cost is now felt so severely by the District that the Board has no disposition to urge or plan for its increase, and therefore makes no recommendation at this time for further acquirements or developments which will increase the loan indebtedness.

The annual expenses of the Board itself and those of maintaining the general office, and those of superintending outside work, have remained practically the same for many years, in spite of the great increase in the property to be cared for. The Paymaster's and the Purchasing Departments have been added. The number of outside Superintendents has been reduced from eight to six. The Claims and Title Departments have been reduced, but the number of stenographers in the general office has been somewhat increased. The Engineering Department has been reduced to the number required for a permanent force for maintenance, although a few additional assistants will be employed until the construction work referred to has been completed. These facts indicate the effort of the Board to keep the expenses of maintenance as low as possible, and make it clear that, while the entire cost has increased from year to year, and while it must continue to increase, this increase is due to the completion of new work and its being opened to public use,

rather than to any increase in the expense of the general office or of supervision.

The present cost of maintenance is divided between that required for the general office and superintendence of the several outside divisions, and what may be called operating expenses. These latter include the cost of police, lighting, street watering or its equivalent, labor and supplies, of which police and lighting are practically fixed charges. Street watering was equally a fixed charge until the advent of the automobile, but it must now be considered as falling into the same class with labor and supplies, and likely to be somewhat variable, according to the special circumstances of each year. A budget or estimate of the cost of maintenance for the ensuing year is presented to the Auditor in November. This budget is reviewed by the Ways and Means Committee of the Legislature in public hearing, at which the committee exercises its right of investigating and determining the amount of each item with great thoroughness, and at the same time gives opportunity to the public, and especially to the various cities and towns of the District, to examine the estimates and question the Board in regard to them.

Two very important factors in determining the size of the variable items, that is, of the items for watering or its equivalent, labor and supplies, are those of the work required for repression of the gypsy moth, brown-tail moth, elm-tree beetle, and other insects which destroy trees; and the items for repairs necessitated by the wear and tear upon the road surfaces by automobiles. The work against the gypsy moth and other insect pests has been successful. In Middlesex Fells, where the largest expense has been required, there has been no loss of trees during the past year; and the moths have been so much decreased that the method of work is now gradually being changed to that of spraying, which it is believed will, under present conditions, be successful, and bring a gradual decrease in the cost of the work. Unfortunately, the brown-tail moths have come back in great numbers, and will require large expense for this year at least. The elm-tree beetle has also appeared in great numbers, and the San José scale and some of the minor insects

have appeared at various points in numbers sufficient to require restrictive work. The expense in this division must remain about the same as last year, which was, however, a reduction from that of the previous year. After this year a further substantial reduction in expense is hoped for. The same general result marks the work against insect pests throughout the portions of the system north of Charles River. In the neighborhood of upper Charles and of the reservations and parkway of the Blue Hills Division, however, there has been such an increase of gypsy moths and elm-tree beetles, and some of the minor insects in lands outside the reservations, that a somewhat increased expense will be required within the reservations to ward off invasion from outside. The experience in the northern divisions makes it evident that prompt and unremitted repression is true economy in this line of work.

It is but a few years since the automobile problem arose. The experience of each year makes it more evident that no form of parkway or suburban road built before the advent of automobiles has withstood the wear and tear of unrestricted automobile traffic; and that the forms of repair and resurfacing which make such roads most comfortable for automobile traffic are far more expensive than those which had been looked forward to when the roads were built; and that the forms of repair which most fit them for automobile travel somewhat unfit them for comfortable use by horses. This has been especially demonstrated in the case of Revere Beach Division, which has been surfaced with tarvia and is in excellent condition for automobiles, but too smooth for comfortable use by horses.

With this experience before it, the Board has deemed it reasonable to somewhat limit the use by automobilists of the parkways and roads in its charge by limiting the rate of speed and by prohibiting the use of chains. The purpose of the speed limitation is to ensure public comfort and convenience, and to prevent undue destruction of the road surface. The purpose of the chain rule is solely that of preventing undue destruction of the road surfaces. Experience and expert advice satisfy this Board that both limitations

are reasonable, although it may be frankly said that many complaints and requests for removal or modification of these limitations have been received from automobilists. The Board has not thus far, while somewhat modifying its rules, seen its way to completely remove them, because the parkways and roads in its charge have been provided for use as pleasure ways, in order that reasonable comfort and security from nervous strain might be enjoyed by all who use them. Those who drive horses have been obliged to sacrifice much of their pleasure and comfort since the coming in of automobiles; and it seems reasonable to require that automobilists shall for their part make some sacrifice of the unlimited desires felt by some of their number. Moreover, the Board feels that it would be neglectful of its duty to reasonably keep down the expense of maintenance if it should permit uses which seem to be unreasonably destructive of the road surfaces. It is believed to be quite as much for the interest of automobilists as of other users of the parkways that the expenses of maintenance be kept within limits which those who make appropriations, and those who pay the taxes, will approve as being reasonable. Suggestions that the tax on automobiles be increased to provide for such repairs have been received, but these suggestions must be considered as inapplicable, as no portion of the tax already imposed is apportioned to this Board.

Certain special matters of repair and maintenance ought to be provided for at once. Of these, the ones requiring immediate attention have been included in the maintenance estimates submitted for the ensuing year, and it will be the policy of the Board to include such special items each year. To these should be added one not included in the present estimate for the year, — for a new tower on Bear Hill in Middlesex Fells. It has been necessary to close the one built by the Appalachian Mountain Club before the Reservation was acquired, and in consequence the public has been shut out from the magnificent view which has been so great a pleasure in years past. As the tower which has been closed was a gift, it seems proper that it should be renewed by the District, now that it has become no longer safe for use.



MIDDLESEX FELS RESERVATION.—Bridge to carry Boston Elevated Street Railway over Brooks Road.

During the past year this Board, under authority of chapter 404 of the Acts of 1907, has acted with the Charles River Basin Commission as a Joint Board, in regard to petitions for locations for boat houses upon the embankment of Charles River, now in process of construction by the Basin Commission. The Joint Board organized by choice of Henry S. Pritchett, Chairman of the Basin Commission, as Chairman, and John Woodbury, Secretary of this Board, as Secretary. Upon the resignation of Mr. Pritchett he was succeeded by Henry D. Yerxa, the present Chairman of the Basin Commission. The engineers and landscape and other advisers of the several boards acted as advisers to the Joint Board. Public hearings were given upon all petitions, and careful investigation was made of all phases of the matter. A location has been granted to the Union Boat Club, and accepted. Other petitions are pending. The consideration given to this matter has shown the necessity of a more definite provision of law than now seems to exist in regard to the future care and control of the embankment between Cambridge Bridge and Cottage Farms upon its completion, and perhaps in regard to other matters relating to the Basin.

A special report upon the matter of a new bridge across Neponset River, and of a parkway from the crossing of Columbia Road of the Boston Park System over the Plymouth Division of the New York, New Haven & Hartford Railroad to the bridge at Neponset River, has been prepared as required by chapter 141 of the Resolves of 1908, and is ready to be presented to the Legislature.

The usual annual reports of the Secretary, Landscape Architects and Engineer accompany this report.

All of which is respectfully submitted,

WILLIAM B. DE LAS CASAS.
EDWIN U. CURTIS.
DAVID N. SKILLINGS.
ELLERTON P. WHITNEY.
EVERETT C. BENTON.

REPORT OF THE SECRETARY.

HON. WILLIAM B. DE LAS CASAS, *Chairman, Metropolitan Park Commission, 14 Beacon Street, Boston.*

SIR: — I herewith present my report for the year ending Dec. 1, 1908. It is subdivided as follows: 1. Acquirement of lands; 2. Administration; 3. Miscellaneous; 4. Finance.

1. ACQUIREMENT OF LANDS.

A taking in continuation of the Furnace Brook Parkway in Quincy was made early in the year from Black's Creek to the Quincy Shore Reservation, including the properties at Rufe's Hummock at the southerly end of Quincy Shore which had already been secured by purchase. This taking provides a better connection between the parkway and reservation than first planned, and adds to the shore frontage some additional beach. A small piece of land was acquired in West Quincy to provide for extension of Crescent Street into Copeland Street without interference with the Parkway, and in accordance with an agreement with the city of Quincy, to whom the land was subsequently conveyed, in order that the street might be laid out and built by the city. Land for Alewife Brook Parkway has been acquired from the mouth of the brook at Mystic River to Little and Spy ponds in Belmont and Arlington, and plans have been approved for the remainder of the distance to a connection with Fresh Pond in Cambridge. These lands are obtained in connection with the work of purification of Mystic River, Alewife Brook and adjacent water courses, ponds and drainage areas, according to plans approved by the State Board of Health and the towns of Arlington and Belmont and cities of Cambridge and Somerville, as directed by chapter 529 of the Acts of the Legislature of 1906, and chapter 529 of the Acts of 1907. The length of the parkway from Mystic River to

Metropolitan Park System—Dec. 1, 1908.

[illegible]



Fresh Pond is 2.12 miles. The width of the taking varies greatly, being governed by the requirements for the plan of sanitation.

A small addition was made to the section of Winthrop Parkway in Revere, between Pontus and Billow avenues, to provide for necessary slopes in building the portion of this parkway from Charles Eliot Circle to Leverett Avenue.

A strip of Hart's Hill was conveyed to the town of Wakefield, to enable the County Commissioners to widen Main Street where it passes along Hart's Hill Reservation.

At several points in the Revere Beach and Lynn Shore reservations and Middlesex Fells and Lynn Fells parkways small parcels of land between taking and construction lines have been conveyed to the abutting owners.

The table herewith presented gives the present areas of the reservations and parkways and the length of the parkways.

2. ADMINISTRATION.

The general offices of the Commission and Engineering Department continue to be located at 14 Beacon Street, in Boston.

Landscape Architects.

Messrs. Olmsted Brothers are still the landscape advisers of the Commission, and their report, annexed hereto, shows the matters upon which they have been consulted by the Board.

Engineering Department.

Important work of construction has been carried on under the direction and supervision of this department. A large amount of time has been required in preparation of plans for takings for Alewife Brook Parkway, which required additional study of the sanitation problem connected therewith. The surfacing of Lynn Fells Parkway between the Fells and Green Street in Melrose was completed early in the year, except the section across Ell Pond Park, where settlement of the sub-grade is still going on. Additional filling has been made, but further settlement is to be expected on account of the nature of the soil. The extension of Fellsway West

from its junction with Forest Street to Elm Street in Medford, providing for a central location for the street railway location, has been finished. This involved changes in portions of Forest Street, and building an extension of one of the roadways into the reservation itself for a short distance. The bed for the street railway was built from Forest Street to the Stoneham line at the same time, and under the same contract, as the parkway.

The work of extending Mystic Valley Parkway down Mystic River to Cradock Bridge has continued. Considerable dredging has been done, and a concrete and steel bridge built across Alewife Brook.

The steel and concrete bridge carrying the Southern Division of the Boston & Maine Railroad over the park road near Auburn Street in Medford is finished and in use. An additional span has been added to Cradock Bridge, and work on the dam and lock is progressing satisfactorily, and will be completed in the spring.

In the Blue Hills Reservation preliminary work has been done on a section of boundary road between Hillside and Forest streets in Milton. In Middlesex Fells Reservation portions of Pond Street and Woodland Road have substantially been rebuilt. A steel concrete bridge has been constructed to carry the location of the Boston Elevated Street Railway Company over Brooks Road at the Stoneham line. The driveways of Quincy Shore Reservation were completed and opened to public travel. At Winthrop Shore a section of sea wall has been built, to prevent further encroachment by the sea adjacent to Grovers Cliff.

The Engineer has supervision of road repairs, repairs to bridges and other similar work of construction in the respective divisions. Experiments have been continued in the use of various materials on the park roads for the purpose of preserving them, especially from the destructive effect of automobile travel. Tar and tar and oil preparations and calcium chloride have been used with more or less success, and the results carefully noted. In all, 25.25 miles of road have been treated in one way or another, and the Engineer's report gives a summary of the results.

Law and Claims Department.

Before making takings, the policy has been continued of obtaining options for the purchase of lands, and the result has been satisfactory in reducing the number of cases which have to be tried out in court. This work has been performed by this department, together with the subsequent details of searching of titles and preparation of deeds, takings and other necessary documents. Contracts for construction and all other legal papers required by the work of the Commission have also been prepared by this department. Outstanding claims for lands taken for parks and parkways, including the recent takings along Alewife Brook, for a large part of which options have been obtained, number 101, and it is estimated will cost \$92,668.41, for which a proper amount has been set aside from the loans by the Commission in making their estimates of amounts available for completing work on hand.

Superintendence.

On April 1 the Riverside and Speedway divisions were combined as the Charles River Division, so that the reservations and parkways are now grouped in six divisions, instead of seven as heretofore. Otherwise the system of administration is unchanged.

BLUE HILLS DIVISION: B. J. COSTELLO, *Superintendent.*

In Blue Hills Reservation a new piece of driving road has been built, from Randolph Avenue, south of Hawk Hill, to Braintree Pass Road. Some preliminary work has been done on the boundary road between Hillside and Forest streets. When completed, this, with the road already built from Forest Street to Randolph Avenue, will give a much-needed connection along the north boundary of the reservation. At Houghton's Pond new boat landings have been built. On Oct. 21, 1908, from an unknown cause, the old Houghton barn, used for storage purposes, took fire and was completely destroyed with all its contents. The horse sheds built this year and the refectory building were saved by

the energetic efforts of the Milton Fire Department, aided by most praiseworthy work on the part of police and other employees who were in the neighborhood. On Randolph Avenue a new stable is building for use in connection with the administration of the eastern part of the reservation. The excavation and laying of the foundation was done by the regular employees, and the building is being erected by A. H. Tucker from plans of Stickney & Austin, Architects. The contract price is \$5,875. A number of hemlocks were planted during the year, and considerable forestry work done along the roads and paths. Great care has been taken to prevent further spread of the gypsy moth in the reservation. Old colonies were watched and many new colonies were treated. Scouting, which is still in progress, indicates that the moth has not been allowed to gain a footing in the reservation itself. There is much ground for anxiety, however, in conditions surrounding this greatest of the woods reservations. The moth is found in numbers in the bordering towns, especially at the easterly end. Nearly the whole of the southern boundary of the Blue Hills is upon a thickly wooded region, which is not likely to receive much care or attention. Unless a strong defensive campaign is carried on along the boundaries, the reservation is in grave danger from incursions in this direction. Increased watchfulness and a considerable expenditure will be necessary, and in the end will be of greatest economy. Band concerts were given in the grove at the foot of Great Blue Hill on Sunday afternoons during the summer, were largely attended and apparently gave much pleasure. With the approval of the Commission, the tower of the Blue Hill Observatory, which is under the direction of Harvard University, has been extended in height by adding one story.

In the Stony Brook Reservation, Turtle Pond Road, which traverses this reservation from Washington Street in West Roxbury to two exits in Hyde Park, was resurfaced. This road is now used quite largely by automobiles, and should receive some preservative treatment the coming year. The treatment of gypsy moth colonies last year appears to have been very successful, and only a few new ones have been

found. Like the Blue Hills, however, this reservation is exposed along its borders to infestation from outside, and will require to be carefully watched and protected. Several buildings used in administration have required and received repairs.

The driveway along Quincy Shore was opened to use on May 29. The shore is largely used by the boating element in this part of the district, and after consultation with representatives of the yacht clubs, satisfactory rules were made for transporting boats of limited size across the driveway, under restrictions intended to prevent interference with the safety and convenience of the public using the driveway. Provision was also made for storing larger boats and floats on the beach during the winter months. The road was treated with calcium chloride, which appears to be a satisfactory method for this vicinity. The annual appropriations for maintenance were insufficient for lighting this roadway this year, and it seems desirable that some lighting should be provided for the coming year. There is tree and shrub growth at the ends of Quincy Shore, which was found to be infested with the gypsy moth, and was given proper attention.

Neponset River Reservation has required moth work from one end to the other, — that is, from Fowl Meadows in Canton to the groves below Milton in Dorchester.

Blue Hills Parkway from Mattapan to Canton Avenue is largely used by automobiles. The portion of the gravel road from Blue Hills Terrace to Canton Avenue Circle was resurfaced, and the remainder of the roadways was treated with asphaltilene. The large elms near Mattapan required pruning and mending, and all the trees were protected from moths.

The driveway of Neponset River Parkway in Milton, from Blue Hill Avenue to Brush Hill Road, was treated with a tar mixture.

Furnace Brook Parkway in Quincy was treated with calcium chloride. Some additional planting was done, and the channel of the brook cleaned. Crescent Street in West Quincy was extended to connect with Copeland Street with-

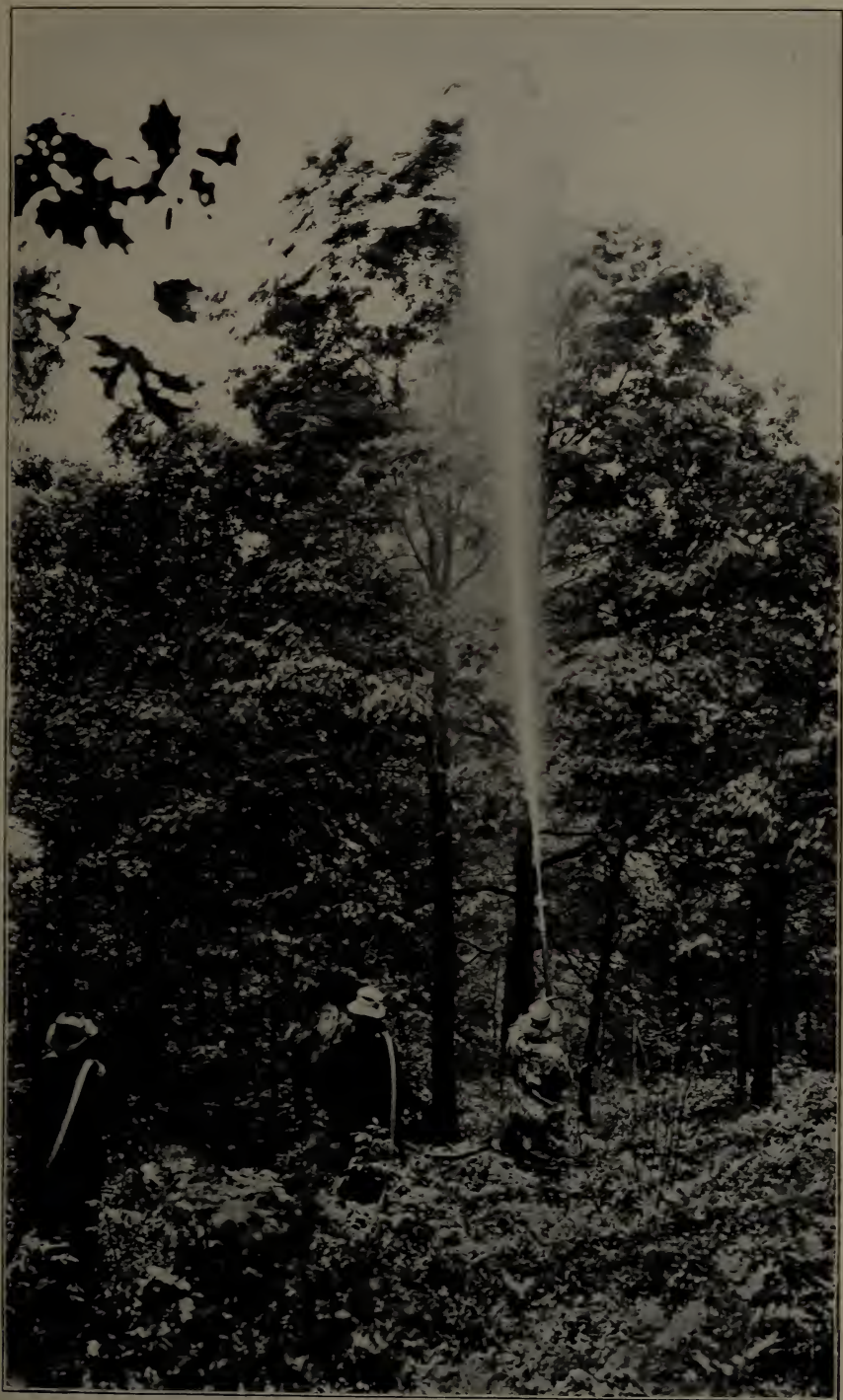
out crossing the parkway over land conveyed to the city of Quincy for that purpose, the Commission also making a contribution towards the cost of construction.

MIDDLESEX FELLS DIVISION: A. N. HABBERLEY, *Superintendent*.

The campaign in Middlesex Fells Reservation against the gypsy moth was again carried on vigorously during the year with satisfactory results. In addition to methods heretofore pursued, a considerable amount of spraying was done in sections where it was found practicable to pursue this course. Over 800 acres were sprayed, and it will probably be advantageous to extend this class of work during the coming year. The brown-tail moth, of which there was very little last year, has returned again this year in considerable force, and will require special attention. The work of the past few years continues to show a steady improvement in conditions, and the cost has been gradually reduced.

Considerable portions of Pond Street and Woodland Road, which are largely used by automobiles, have been rebuilt, and this work should also be extended. Hemlock Pool Road, which is a gravel driving road, has been resurfaced. The Andover Turnpike, which is Main Street in Stoneham and Forest Street in Medford, and is a through road from north to south, was treated through its length with either tar or oil. Other roads received repairs. The collection of animals at the Pond Street headquarters has been kept up, and has brought many visitors to see it. During the winter, feeding stations for birds were maintained in different parts of the reservation. The nursery of shrubs is beginning to furnish considerable stock for planting.

Near the junction of Fellsway West and Forest Street in Medford, on the southern boundary of the Fells, a police and public-comfort station is being built by W. A. & H. A. Root, Inc., from plans of Stickney & Austin, Architects. The contract price is \$28,690. Besides furnishing public conveniences, the building will be the headquarters for police and superintendence of the Middlesex Fells Division, which includes the Middlesex Fells Reservation, Middlesex Fells Parkway, Lynn Fells Parkway, Mystic River Reservation



MIDDLESEX FELS RESERVATION.—Spraying for Protection against the Gypsy Moth. By use of power sprayer, spraying has been done 1,500 feet from the machine.

and Mystic Valley Parkway. It is so located that it can be reached by roadway most directly from all parts of the division, and will also be conveniently situated on the line of the Boston Elevated Street Railway which is now being built from Somerville through the Middlesex Fells Parkway to the foot of Spot Pond. The need of this headquarters building has long been felt, but its erection has been deferred until developments should indicate where it should be located. Inspection indicated that the tower on Bear Hill, erected some years ago by the Appalachian Club, was no longer safe for public use, and it has been closed. It should be replaced by a more permanent structure, as it commands the widest view in the Fells, and one of great beauty and interest.

Middlesex Fells Parkway has been resurfaced, and the roadways treated with either tar or oil. This is one of the great automobile highways, and it seems that it will be essential to repair the inevitable wear each year. A portion of roadway near Wicklow Street has been relocated in connection with the building of the street railway, the railway company paying the necessary cost. The Boston Elevated Street Railway now has its line constructed from Somerville to Spot Pond through the Fells Parkway and Reservation. It is expected that the line will be opened to use on the completion of the Mystic Avenue bridge in Somerville over the Boston & Maine tracks. At Fellsmere Park, in Malden, the construction of a path on the westerly side of the pond and the building of a beach have been begun. A number of band concerts were given in this park during the summer. Concerts were also given at Cradock Field in the Edgeworth section near the Medford line. Wellington Bridge has been repainted, and other necessary repairs made. There were 164 draw openings during the year.

Mystic Valley Parkway was treated partly with tar and the remainder with oil. Bath-houses for children were maintained on Mystic Lake, and no accidents occurred. Aberjona Bridge was replanked. In addition to moth work, considerable trouble was experienced with the elm beetle, which reappeared quite generally in the District last summer. A

small sub-station for use of the police and laborers has been completed midway on the parkway, to take the place of the little wooden building which was burned last year. The walls are of field stone, and the work was largely done by employees of this division. Jerome Street Bridge on the Mystic River, near Alewife Brook, has been repaired, but will ultimately have to be replaced by a more substantial structure.

Lynn Fells Parkway was completed and opened to use on January 16 last, from Middlesex Fells Reservation down to Ell Pond Park. The road was treated during the summer with calcium chloride.

On April 18, 1908, Mr. Charles P. Price resigned as Superintendent of the Middlesex Fells Division, in order to enter into private business. Mr. Price was first employed in the Blue Hills Reservation in 1894, then became Superintendent of the Stony Brook Reservation, and had been Superintendent of the Fells Division since July 15, 1896. The Commission entered upon its records its appreciation of his long and faithful service. Mr. A. N. Habberley was transferred from Riverside Section, Charles River Reservation, to fill the position left vacant by Mr. Price's resignation.

REVERE BEACH DIVISION: H. W. WEST, *Superintendent*.

In addition to the usual work of repairs on the driveway and sidewalk of Revere Beach Reservation, it was found necessary last spring to build about 600 feet of bulkhead along the top of the beach near the Point of Pines, to prevent a repetition of damage suffered from winter storms. Some repairs were made to the bulkhead at Eliot Circle, and it is apparent that additional protective work will be needed at this point very soon. The northern portion of the driveway was treated with liquid asphalt, and the portions treated last year with tarvia and asphaltilene repaired, so that a good surface was maintained during the summer the entire length of the reservation. Lynnway, from the Northern Circle to Saugus River Bridge, was treated with tarvia. Another drinking fountain has been installed north of Oak Island, and additional seats placed along this section of the

beach. The band stand was repaired, and the usual number of band concerts given during the summer. Considerable repairs were made to the Revere Beach Bath-house during the winter, and in the sewing-room bathing suits were made for this and the Nantasket Beach Bath-house. The Revere Bath-house was opened on June 16 and closed on September 13, a period of 90 days. It was used by 152,184 people, of whom 96,671 were males and 55,513 females. The largest day was on July 12, when the attendance was 7,562. The early part of the season was, as last year, the most favorable, but the total attendance fell somewhat below the previous year's record. The total receipts for the season were \$33,206.60, and the expenses for the year \$34,016.07. No serious accident occurred in the water.

The tarvia surface of the driveway at Winthrop Shore was repaired. The bridge over the Boston, Revere Beach & Lynn Railroad has been paved with wooden blocks. The iron fence along the sea wall was scraped and painted. At the northerly end of the reservation a piece of wall 467 feet long has been built, to prevent further encroachment of the sea into the high bank. The southerly end of Lynn Shore Drive from Prescott Place to the Nahant Beach Bath-house was completed and opened to use on Dec. 7, 1907. The older portion of the driveway has been resurfaced, and the roadway has been treated during the summer with calcium chloride. A drinking fountain was installed at the foot of Prescott Place, and seats set up along the shore side of the drive. The iron fence on the sea wall was repaired, scraped and repainted. Some repairs were made to the sea wall.

The bridle path along Nahant Beach Parkway was given a new surface. Additional planting was made at several points and at the bath-house. The roadway in front of the bath-house was treated with calcium chloride. A small stable was built in the rear of the bath-house, and necessary repairs made to the building. The Nahant Beach Bath-house was opened on June 27 and closed on September 7, a period of 73 days. The total number of bathers was 27,675, of whom 14,373 were males and 13,302 females. The largest attendance in one day was 2,004, on July 12. This is

Forest Grove Road, which extends from Commonwealth Avenue in Auburndale through Auburndale Park and Forest Grove to Woerd Avenue in Waltham, has been completed as a simple driving road. A road has been built from River Street in Weston to Norumbega Tower. The Speedway was resurfaced, and repairs made to Soldiers' Field and Charles River Road. Dead trees and underbrush have been removed, and protective work carried on against the gypsy and brown-tail moth and elm-tree beetle the entire length of the reservation. The large use of the upper river for canoeing continues, and there is a marked increase in the number of motor boats. The effect of rapid-moving power boats in shallow water is to create a large wake, which undermines the banks, and it is evident that the rules as to speed will have to be strictly enforced to prevent unnecessary damage to the banks of the river and to safeguard the interests of the canoeing public. Provisions for skating have been maintained at several points on the river at suitable seasons, and have been largely availed of.

The Speedway has been largely used, and the usual series of races were held in the winter, spring and fall, under the auspices of the Metropolitan Driving Club. There were only fourteen days of sleighing, however, last winter. At Faneuil a vacant tract of ground was graded so that it could be used by the children of the vicinity for skating in winter and baseball and other games in summer. Band concerts were given during the summer at Newton Upper and Lower Falls, Riverside, Fox Island, Waltham Canoe Club (regatta day), Watertown and the Speedway. Those at Fox Island, Watertown and the Speedway were very largely attended. The town of Watertown has completed and opened to traffic a new stone and concrete bridge, which carries Galen Street across the Charles River at the end of Charles River Road in Watertown. In accordance with the agreement made between the Commission and the town, this bridge was planned of sufficient width to carry parkway travel in addition to highway uses, and the Commonwealth contributed \$10,000 towards the cost of its construction.

Fresh Pond Parkway in Cambridge was resurfaced, and

work against the moths and elm-tree beetles carried on along the parkway and through Lowell Memorial Park.

The St. Alphonsus Athletic Association have located their boat houses and floats on land which is a part of the Charles River Reservation just above Cottage Farm Bridge on the Boston side, acting under a revocable permit issued therefor by the Commission.

BEAVER BROOK DIVISION: R. ELDER, *Superintendent*.

The work in this small but largely used reservation has been mostly of routine character. The Waverley Oaks and other interesting tree growth have been cared for and protected against insect pests. The ponds have been used by skaters in winter, and the number of picnickers and other visitors in summer has been as great as ever. The removal of some of the stones and a slight amount of grading in the lower section have added somewhat to the comfort of those using this portion of the reservation, and a short piece of driveway has been constructed in towards the Oaks from the highway.

NANTASKET BEACH DIVISION: M. LEIGHTON, *Superintendent*.

Very considerable repairs have been made to the buildings at Nantasket Beach, both for their preservation and to afford more convenience to the public. The plumbing in the hotel has been renewed, and a new kitchen is under construction. The latter improvement is one that was much needed, and could not well be longer postponed. The hotel buildings have also been wired for electric lighting, making it possible to dispense with the use of gas, and removing one of the sources of danger from fire. Repairs have also been made in the administration buildings, and new machinery installed in the laundry. The portion of Nantasket Avenue in the care of the Commission has been treated with calcium chloride during the summer, — a treatment which appears to be particularly suited to roadways along a shore frontage.

The Nantasket Beach Bath-house was opened on June 27, and closed on September 7, a period of 73 days. The total number of bathers was 33,651, of whom 19,133 were males

and 14,518 females. The largest number on one day was 1,825, on July 12. The total receipts for the season were \$7,385.10, and the expenses for the year \$8,748.39.

3. MISCELLANEOUS.

The petition of the Boston & Northern Street Railway Company for a location in Middlesex Fells from the Stoneham line to Main Street in Stoneham had been before the Commission for a considerable period, and action deferred thereon until the necessary connection with the Boston Elevated Railway Company at the Stoneham line was made certain, and the Boston & Northern Street Railway Company could assure the Commission that the new line would be built within a reasonable time after the location was granted. These matters having been satisfactorily adjusted, the location was granted to the Boston & Northern Street Railway Company on Oct. 7, 1908, which was duly accepted by the company. It is intended to have the line built and in operation within the year 1909.

The Commission, acting with the Charles River Basin Commission as a Joint Board, under the provisions of chapter 404 of the Acts of the Legislature for the year 1907, granted, on April 28, 1908, a location to the Union Boat Club for a boat house on the Charles River Basin near the foot of Mt. Vernon Street in Boston. The conditions of the grant were unsatisfactory to the Boat Club, and it was declined. A conference between sub-committees of the Joint Board and of the Boat Club led to the filing of a new petition on November 2, which was followed by a grant by the Joint Board on November 4, in the same location but under somewhat different conditions, which grant has been accepted by the Boat Club. Other petitions for locations are pending before the Joint Board.

4. FINANCES.

The following tables show in brief form the expenditures under the various park loans for the year ending Dec. 1, 1908: —

METROPOLITAN PARKS LOAN FUND.

Blue Hills Reservation:—

Land, \$507 05

Miscellaneous, 80 86

\$587 91

Middlesex Fells Reservation:—

Miscellaneous, \$121 57

121 57

Revere Beach Reservation:—

Miscellaneous, \$187 98

187 98

Stony Brook Reservation:—

Miscellaneous, \$32 65

32 65

Beaver Brook Reservation:—

Miscellaneous, \$117 90

117 90

Hemlock Gorge Reservation:—

Miscellaneous, \$1 00

1 00

Charles River Reservation:—

Miscellaneous, \$10,392 20

10,392 20

Neponset River Reservation:—

Land, \$400 00

Miscellaneous, 59 45

459 45

Mystic River Reservation:—

Miscellaneous, \$73,594 25

73,594 25

Lynn Shore Reservation:—

Land, \$250 00

Miscellaneous, 25,917 80

26,167 80

Quincy Shore Reservation:—

Miscellaneous, \$19,084 49

19,084 49

Winthrop Shore Reservation:—

Miscellaneous, \$850 21

850 21

Hart's Hill Reservation:—

Miscellaneous, \$98 40

98 40

General expense, 3,391 30

\$135,087 11

METROPOLITAN PARKS LOAN FUND, SERIES II.

Blue Hills Parkway:—

Miscellaneous,	\$24 07	
	<hr/>	\$24 07

Middlesex Fells Parkway:—

Land,	\$2,500 00	
Miscellaneous,	83,362 43	
	<hr/>	85,862 43

Mystic Valley Parkway:—

Miscellaneous,	\$16,186 78	
	<hr/>	16,186 78

Revere Beach Parkway:—

Miscellaneous,	\$20,220 40	
	<hr/>	20,220 40

Neponset River Parkway:—

Miscellaneous,	\$261 54	
	<hr/>	261 54

Fresh Pond Parkway:—

Miscellaneous,	\$3 33	
	<hr/>	3 33

Furnace Brook Parkway:—

Land,	\$14,275 00	
Miscellaneous,	5,273 98	
	<hr/>	19,548 98

Nahant Beach Parkway:—

Miscellaneous,	\$346 46	
	<hr/>	346 46

Lynn Fells Parkway:—

Land,	\$2,481 50	
Miscellaneous,	34,479 75	
	<hr/>	36,961 25

Winthrop Parkway:—

Land,	\$5,938 92	
Miscellaneous,	106 20	
	<hr/>	6,045 12

Alewife Brook Parkway:—

Land,	\$25,967 79	
Miscellaneous,	6,451 90	
	<hr/>	32,419 69

Charles River Speedway:—

Miscellaneous,	\$69 38	
	<hr/>	69 38

Blue Hills Roads:—

Miscellaneous,	\$513 65	
	<hr/>	513 65

Middlesex Fells Roads: —

Miscellaneous,	\$306 27	
	<hr/>	\$306 27

Lynnway: —

Miscellaneous,	\$13,554 76	
	<hr/>	13,554 76

General expense,		1,409 98
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\$233,734 09

The following tables show the total amount expended in each loan, the cost of each reservation and parkway to Dec. 1, 1908, and the amount charged by the Auditor's department to meet the sinking fund and interest requirements previous to Jan. 1, 1900: —

METROPOLITAN PARKS LOAN FUND.

Blue Hills Reservation: —

Land,	\$363,069 09	
Miscellaneous,	287,115 40	
	<hr/>	\$650,184 49

Middlesex Fells Reservation: —

Land,	\$690,782 43	
Miscellaneous,	287,330 88	
	<hr/>	978,113 31

Revere Beach Reservation: —

Land,	\$1,162,947 67	
Miscellaneous,	799,365 11	
	<hr/>	1,962,312 78

Stony Brook Reservation: —

Land,	\$281,243 87	
Miscellaneous,	75,811 92	
	<hr/>	357,055 79

Beaver Brook Reservation: —

Land,	\$29,819 29	
Miscellaneous,	23,936 76	
	<hr/>	53,756 05

Hemlock Gorge Reservation: —

Land,	\$53,254 00	
Miscellaneous,	15,543 94	
	<hr/>	68,797 94

Charles River Reservation: —

Land,	\$1,476,947 55	
Miscellaneous,	284,629 28	
	<hr/>	1,761,576 83

Neponset River Reservation:—

Land, \$224,783 04

Miscellaneous, 46,369 47

\$271,152 51

Mystic River Reservation:—

Land, \$242,533 21

Miscellaneous, 252,264 89

494,798 10

Lynn Shore Reservation:—

Land, \$361,024 29

Miscellaneous, 243,280 11

604,304 40

Quincy Shore Reservation:—

Land, \$73,716 26

Miscellaneous, 198,071 34

271,787 60

Winthrop Shore Reservation:—

Land, \$51,067 32

Miscellaneous, 166,260 92

217,328 24

Hart's Hill Reservation:—

Land, \$10,000 00

Miscellaneous, 202 35

10,202 35

King's Beach Reservation:—

Land, \$24,297 21

Miscellaneous, 1,551 63

25,848 84

West Roxbury Parkway:—

Land, \$244,976 01

Miscellaneous, 8,313 67

253,289 68

Wellington Bridge:—

Miscellaneous, \$185,317 42

185,317 42

Nahant Beach Bath-house:—

Miscellaneous, \$67,794 58

67,794 58

Boylston Street Bridge:—

Miscellaneous, \$45,838 57

45,838 57

Alewife Brook Purification:—

Miscellaneous, \$1,388 44

1,388 44

General expense, 160,959 64

\$8,441,807 56

Sinking fund requirements to 1896,	\$18,980 18	
Care and maintenance to July 1, 1896,	85,813 46	
Care and maintenance, July 1, 1896, to Jan. 1, 1897,	19,604 06	
Sinking fund assessment for 1897,	63,630 70	
Sinking fund assessment for 1898,	9,755 55	
Sinking fund assessment for 1899,	64,224 00	
Interest,	28,318 61	
	<hr/>	\$290,326 56
<hr/>		
Total charged to Dec. 1, 1908,		\$8,732,134 12

METROPOLITAN PARKS LOAN FUND, SERIES II.

Blue Hills Parkway:—

Land,	\$133,492 02	
Miscellaneous,	269,477 37	
	<hr/>	\$402,969 39

Middlesex Fells Parkway:—

Land,	\$253,194 05	
Miscellaneous,	552,784 00	
	<hr/>	805,978 05

Mystic Valley Parkway:—

Land,	\$203,990 91	
Miscellaneous,	274,172 10	
	<hr/>	478,163 01

Revere Beach Parkway:—

Land,	\$537,445 51	
Miscellaneous,	858,827 66	
	<hr/>	1,396,273 17

Neponset River Parkway:—

Land,	\$83,941 75	
Miscellaneous,	36,094 14	
	<hr/>	120,035 89

Fresh Pond Parkway:—

Land,	\$44,086 25	
Miscellaneous,	29,822 84	
	<hr/>	73,909 09

Furnace Brook Parkway:—

Land,	\$163,897 77	
Miscellaneous,	140,056 89	
	<hr/>	303,954 66

Nahant Beach Parkway:—

Land,	\$80,940 78	
Miscellaneous,	75,010 73	
	<hr/>	\$155,951 51

Lynn Fells Parkway:—

Land,	\$37,768 46	
Miscellaneous,	108,010 85	
	<hr/>	145,779 31

Winthrop Parkway:—

Land,	\$22,907 92	
Miscellaneous,	3,013 18	
	<hr/>	25,921 10

Alewife Brook Parkway:—

Land,	\$25,967 79	
Miscellaneous,	6,451 90	
	<hr/>	32,419 69

Charles River Speedway:—

Miscellaneous,	\$521,243 52	
	<hr/>	521,243 52

Blue Hills Roads:—

Miscellaneous,	\$8,696 26	
	<hr/>	8,696 26

Middlesex Fells Roads:—

Miscellaneous,	\$57,426 69	
	<hr/>	57,426 69

Stony Brook Roads:—

Miscellaneous,	\$37,183 45	
	<hr/>	37,183 45

Lynnway:—

Land,	\$20,500 00	
Miscellaneous,	124,366 10	
	<hr/>	144,866 10

Spy Pond Parkway:—

Miscellaneous,	\$89 04	
	<hr/>	89 04

General expense,		105,138 13
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\$4,815,998 06

Sinking fund requirement for 1896,	\$3,650 03	
Sinking fund requirement for 1897,	14,057 10	
Sinking fund requirement for 1898,	3,765 08	
Sinking fund requirement for 1899,	15,396 00	
One-half interest,	22,327 68	
		<hr/>
		\$59,195 89
		<hr/>
Total charged to Dec. 1, 1908,		\$4,875,193 95

The appropriations heretofore made are as follows:—

METROPOLITAN PARKS LOAN FUND.

Original appropriation, chapter 407, Acts of 1893,	\$1,000,000 00
First Revere Beach Act, chapter 483, Acts of 1894,	500,000 00
Charles River Act, chapter 509, Acts of 1894,	300,000 00
Second Revere Beach Act, chapter 305, Acts of 1895,	500,000 00
General appropriation, chapter 466, Acts of 1896,	1,000,000 00
General appropriation, chapter 464, Acts of 1897,	500,000 00
General appropriation, chapter 530, Acts of 1898,	1,000,000 00
Revere Beach Bath-house Act, chapter 142, Acts of 1899,	125,000 00
General appropriation, chapter 396, Acts of 1899,	300,000 00
Charles River Improvement Act, chapter 465, Acts of 1900,	50,000 00
Fuller's Wharf Act, chapter 467, Acts of 1900,	30,000 00
General appropriation, chapter 445, Acts of 1901,	450,000 00
Mystic River Bridge Act, chapter 492, Acts of 1901,	200,000 00
General appropriation, chapter 290, Acts of 1903,	125,000 00
Newton Upper Falls Bridge Act, chapter 391, Acts of 1903,	40,000 00
Continuing appropriation, chapter 429, Acts of 1903, for 1903,	300,000 00
For 1904,	300,000 00
For 1905,	300,000 00
For 1906,	300,000 00
For 1907,	300,000 00
Nahant Beach Bath-house Act, chapter 326, Acts of 1904,	70,000 00
Reimbursing loan for moth expense, chapter 486, Acts of 1906,	50,000 00
Purification of Mystic River, Alewife Brook and adjacent water courses, ponds and drainage areas, chapter 529, Acts of 1906,	100,000 00
Additional appropriation for purification of Mystic River, etc., chapter 529, Acts of 1907,	25,000 00

Mystic River and Winthrop Shore Act, chapter 652, Acts of 1908,	\$70,000 00
	<hr/>
	\$7,935,000 00
To provide for interest and sinking fund requirements to 1900, chapter 311, Acts of 1897,	900,000 00
	<hr/>
Total amount of loans,	\$8,835,000 00
Amounts received from sales of buildings, receipts from bath-house, fines, etc.,	198,334 01
	<hr/>
Total,	\$9,033,334 01
Total charged to loans,	8,732,134 12
	<hr/>
Balance remaining in hands of State Treasurer, . .	\$301,199 89

METROPOLITAN PARKS LOAN FUND, SERIES II.

Original boulevard, chapter 288, Acts of 1894, . . .	\$500,000 00
General appropriation, chapter 472, Acts of 1896, . .	500,000 00
General appropriation, chapter 521, Acts of 1897, . .	1,000,000 00
Saugus Bridge Act, chapter 547, Acts of 1898, . . .	100,000 00
General appropriation, chapter 428, Acts of 1899, . .	500,000 00
Mattapan Bridge Act, chapter 443, Acts of 1900, . .	75,000 00
Winchester Act, chapter 444, Acts of 1900,	50,000 00
Revere Beach Parkway Act, chapter 445, Acts of 1900, .	200,000 00
General appropriation, chapter 172, Acts of 1902, . .	450,000 00
General appropriation, chapter 359, Acts of 1903, . .	110,000 00
Continuing appropriation, chapter 419, Acts of 1903, for 1903,	300,000 00
For 1904,	300,000 00
For 1905,	300,000 00
For 1906,	300,000 00
For 1907,	300,000 00
Alewife Brook and Fresh Pond Parkway Act, chapter 651, Acts of 1908,	50,000 00
	<hr/>
	\$5,035,000 00
To provide for interest and sinking fund requirements to 1900, chapter 311, Acts of 1897,	100,000 00
	<hr/>
Total amount of loans,	\$5,135,000 00
Receipts from sales, etc.,	29,907 41
	<hr/>
Total,	\$5,164,907 41
Total of amounts charged to loans,	4,875,193 95
	<hr/>
Balance remaining in hands of State Treasurer, . .	\$289,713 46

NANTASKET BEACH LOAN.

Appropriation, chapter 464, Acts of 1899, . . .	\$600,000 00
Appropriation, chapter 456, Acts of 1901, . . .	100,000 00
<hr/>	
Total amount of loans,	\$700,000 00
Receipts from rents, etc.,	5,881 50
<hr/>	
Total,	\$705,881 50
Total of amounts charged to loans,	705,881 50

Respectfully submitted,

JOHN WOODBURY,

Secretary.

DEC. 1, 1908.

LYNN FELS PARKWAY.—Bridge to carry Western Division, B. & M. R.R., over Parkway.



REPORT OF THE LANDSCAPE ARCHITECTS.

Mr. W. B. DE LAS CASAS, *Chairman, Metropolitan Park Commission,
14 Beacon Street, Boston, Mass.*

SIR: — We beg to submit the following summary report of matters in which the Landscape Architects Advisory have been consulted during the year ending Nov. 30, 1908.

We have given some study to the subject of the improvement by planting of the scenery of Middlesex Fells Reservation. A report and sketch map was submitted, covering in a general way the need of planting trees, shrubbery and herbaceous plants: first, to afforest certain open areas in accordance with our previously prepared forest map; secondly, to clothe with plantations of shrubbery all bare and raw ground that now presents an ugly appearance; thirdly, to enrich the natural undergrowth with finer sorts of plants than now exist; fourthly, to plant so as to afford food and cover to birds, squirrels and other small creatures of the woodland. Our study at this time leads us to express the opinion that it was unwise to continue the policy of cutting away the underbrush in the campaign against the gypsy moth, but instead to arrest its ravages, so far as the undergrowth was concerned, by spraying. We have had direct supervision of the work of improving the surroundings of the new police station on Forest Street by thinning of trees and by grading. We have continued our consultations with the Engineering Department as to the treatment of the various problems of construction on the proposed electric car route along the west side of Forest Street, and have submitted to the Commission an opinion as to the location of a landing place for passengers and of track cross-overs as proposed by the Boston Elevated Railway near the end of their

line. We have prepared studies for new road connections with Ravine Road, and submitted a plan for the center line of a road to connect Lynn Fells Parkway with Spot Pond. An investigation was made by us in regard to the advisability of brush cutting along the banks of the Charles River at Newton Lower Falls, and a sketch plan and report was submitted covering the matter. We have during the year prepared planting plans for the Mystic River Reservation, and have re-studied the planting immediately about the buildings at Nantasket Beach Reservation.

We have prepared detailed grading plans for Furnace Brook Parkway in connection with changes in the taking line where it crosses the Beale estate, — a matter referred to us for adjustment with the property owner. Similar plans were prepared for the Neponset River Parkway between Blue Hill Avenue and Canton Avenue, and a report was submitted covering the question of granting rights of way on the same parkway to Walter Baker & Co. We submitted a report upon the question of increasing the service accommodations in the bath-house at Nahant Beach. A preliminary plan and report have been submitted by us regarding the line of the proposed Old Colony Parkway; also, a revised preliminary plan was made of the portion of Alewife Brook Parkway between Massachusetts Avenue and Spy Pond, and a preliminary plan for the route of the Winchester-Woburn Parkway has been submitted by us.

Appended is a tabular summary of the plans and reports submitted during the year. Detailed information concerning the various items of construction, planting and maintenance which were carried out during the year under our plans or with our advice will be found in the reports of the Departments of Engineering and Superintendence.

Respectfully submitted,

OLMSTED BROTHERS.

*Summary of Plans and Reports prepared by the Landscape Architects
for the Metropolitan Park Commission during the Year ending Nov.
30, 1908.*

	Studies.	Preliminary and General.	Grading and Construction.	Planting and Forestry.	Reports.	Totals.
Blue Hills Reservation, . . .	—	—	—	—	—	—
Middlesex Fells Reservation, . .	4	—	4	3	8	19
Charles River Reservation, . . .	—	—	—	1	1	2
Mystic River Reservation, . . .	—	—	—	1	2	3
Neponset River Reservation, . .	—	—	—	—	2	2
Nantasket Beach,	—	—	—	4	3	7
Middlesex Fells Parkway, . . .	—	—	—	—	4	4
Neponset River Parkway, . . .	—	—	3	—	2	5
Lynn Fells Parkway,	—	—	—	—	2	2
Furnace Brook,	—	—	1	—	2	3
Nahant Beach,	2	—	—	—	1	3
Alewife Brook,	1	1	—	—	—	2
Winchester-Woburn,	2	1	1	—	—	4
Old Colony Parkway,	3	1	—	—	1	5
Totals,	12	3	9	9	28	61

REPORT OF THE ENGINEER.

HON. WILLIAM B. DE LAS CASAS, *Chairman, Metropolitan Park Commission.*

SIR: — I beg to submit the following report of the work of the Engineering Department for the year ending Nov. 30, 1908.

This department has contained an average of 30 employees during the year, the number varying from 32 to 27 until the last two months, when, on account of resignations and removals, the number has been reduced to 21 at the present time. The classification is as follows: 2 assistant engineers, 2 draftsmen, 6 instrumentmen, 6 rodmen, 3 inspectors, 1 clerk and 1 stenographer. As a large portion of the construction work which has been in progress during the year is now completed or nearly completed, this force will be sufficient to carry on the construction work which is incomplete and the preliminary work which is to be done during the winter months.

The work which has been done under the direction and supervision of this department during the past year has been of the usual varying description, consisting of concrete, reinforced concrete and stone masonry used in the construction of bridges, sea walls, river walls, tidal dam and incidental structures; grading and construction of parkways; resurfacing of roadways; and treatments with tar and oils for surface protection and dust prevention.

The work of road treatments has been prosecuted on the same general lines as that of last year, and to a greater extent, and has included some additional experiments with new mixtures of oil and tar. Tar and a tar and asphalt mixture have also been used in resurfacing work by incorporating the bituminous materials with the stone used.

The department has also had general supervision over

maintenance repairs and construction work done by the forces of the various divisions, and of work done in the parkways and reservations by cities, towns, corporations and individuals under permits and licenses granted by the Commission.

An automobile has been added to the equipment of the department this year, and has been of great assistance in the supervision of the work.

The total cost of conducting the department has been as follows: —

Services,	.	.	.	.	.	.	.	.	.	\$31,785	22
Equipment,	.	.	.	.	.	.	.	.	.	2,041	80
Operating expenses,	.	.	.	.	.	.	.	.	.	2,102	22
<hr/>											
Total,	.	.	.	.	.	.	.	.	.	\$35,929	24

The total cost of construction work done under the direction of this department has amounted to \$197,463.94, exclusive of the cost of engineering and inspection.

An appraisal of the property in charge of the department, omitting the value of maps, plans, notes and records, is as follows: —

Equipment: —

Offices,	.	.	.	.	.	.	.	.	.	\$2,144	26
Surveying and drawing instruments,	.	.	.	.	.	.	.	.	.	2,823	05
Automobile,	.	.	.	.	.	.	.	.	.	1,500	00
Miscellaneous,	.	.	.	.	.	.	.	.	.	23	95
<hr/>											
											\$6,491 26

Supplies: —

General,	.	.	.	.	.	.	.	.	.	776	07
<hr/>											
Total,	.	.	.	.	.	.	.	.	.	\$7,267	33

Details of the work done under the direction and supervision of this department are given in the following sections of parkway and reservation, and in the tables appended.

PARKWAYS.

Alewife Brook Parkway. — Surveys and plans of the section from Mystic River to Spy Pond and the branch to Fresh Pond have been made for the taking of land for the parkway and for the sanitary improvements.

Blue Hills Parkway. — The surfaces of the pleasure drive from Neponset River to Blue Hill Terrace, a distance of about $\frac{3}{4}$ of a mile, and of the traffic road from Neponset River to Canton Avenue, a distance of about $1\frac{1}{2}$ miles, have been treated with an asphalt oil known as "asphaltoilene." The work was done by the Good Roads Improvement Company of Cincinnati, O., from June 20, 1908, to July 18, 1908. The cost of this work was at the rate of $6\frac{3}{8}$ cents per square yard of roadway, — a total of \$3,091.90.

The section of the pleasure drive from Blue Hill Terrace to Canton Avenue, a distance of about $\frac{3}{4}$ of a mile, which has been used as a speedway but is no longer so used, has been resurfaced with gravel. The work was done by the reservation forces during the months of August and September, and the total cost has been \$1,999.50.

Lynn Fells Parkway. — The work of surfacing the parkway from Middlesex Fells Reservation to Tremont Street, and the portion from Melrose Street to Green Street, which was added to the contract for the former work, has been completed and these sections opened to public travel. The work was done by Coleman Brothers, was begun Oct. 1, 1907, and completed May 23, 1908.

The total cost of this work has been as follows:—

Previously reported:—

Construction and incidentals, contract

No. 111,	\$13,086 77	
Engineering and inspection,	506 23	
		<hr/>
		\$13,593 00

Year ending Nov. 30, 1908:—

Construction, contract No. 111, . . .	\$9,384 12	
Incidentals,	571 14	
Relocating water mains and services, .	2,866 99	
Engineering and inspection,	1,081 99	
		<hr/>
		13,904 24
		<hr/>
Total,		\$27,497 24

On the section of the parkway through the swamp from Tremont Street to Melrose Street, which has been settling continually since the filling for the subgrade was completed, the surfacing has been omitted on account of this settlement.

The amount of settlement appears to be diminishing, and probably by next spring this section will be ready for finishing.

During this year 9,991 cubic yards of material have been placed in this location, at a total cost of \$4,995.50. The material was furnished by R. Philpot of Melrose.

Middlesex Fells Parkway. — The work of constructing the extension of Fellsway West to a point about 1,000 feet north of Elm Street and the roadbed for electric railway to the Medford-Stoneham line has been completed. This work has been done by Rowe & Perini Construction Company, was begun Oct. 3, 1907, and completed Sept. 8, 1908.

The total cost of this work has been as follows: —

Previously reported: —		
Construction and incidentals, contract		
No. 108,	\$16,092 08	
Engineering and inspection,	521 37	
	<hr/>	\$16,613 45
Year ending Nov. 30, 1908: —		
Construction, contract No. 108,	\$46,406 48	
Incidentals,	1,283 66	
Additional loam,	1,775 00	
Engineering and inspection,	3,291 20	
	<hr/>	52,756 34
		<hr/>
Total,		\$69,369 79

The Boston Elevated Railway Company has completed the work of laying its tracks in Middlesex Fells Parkway and over the new portion of roadbed built under the previously described contract, and into the reservation as far as Brooks Road, over which the railroad is to cross on a bridge.

Construction plans and specifications have been prepared for the work of building a reinforced concrete bridge for the electric railway over Brooks Road near the Medford-Stoneham line. This bridge spans the valley in the center of which the roadway is located, and is composed of three arches. The center arch, through which the roadway passes, has a span of 44 feet 6 inches, and the two end arches a span of 34 feet each. The width of the bridge is 23 feet 6 inches, and it is designed to carry two tracks.

ive in preventing dust and mud, and in protecting the surface of these roadways during the past season. The work was done during the month of July, and the total cost has been \$2,211.45. This treatment was used where the roadways were in fairly good condition, and, at the time of the application, did not actually need resurfacing.

Mystic Valley Parkway. — Construction plans and specifications have been prepared for building a reinforced concrete arch bridge over Alewife Brook near its outlet into Mystic River. This bridge has a width of 55 feet 8 inches and span of 40 feet. The bridge is located on the proposed location of the new channel of Alewife Brook as it will be after the work for the sanitary improvements is completed, and is entirely outside of the present channel. This necessitates the excavation of about 400 feet of the new channel as a part of the contract for building the bridge.

On May 4, 1908, the following bids were received for the work: —

Falvey & Kelly, Dorchester,	\$17,900 00
Fred T. Ley & Co., Inc., Springfield,	17,776 25
W. A. Murtfeldt Company, Boston,	15,514 50
McHale & Perkins, Boston,	13,322 50
T. Stuart Son Company, Newton,	11,880 00
Coleman Brothers, Boston,	11,670 00
James H. Fannon, Somerville,	10,212 50

On account of delay in obtaining transfer of land upon which the bridge was to be built, the contract was not awarded until July 8, 1908. The contract was then awarded to James Fannon, the lowest bidder, the work was begun on July 20, 1908, and is now completed, except a small amount of channel excavation.

The estimated cost of this work to Dec. 1, 1908, has been as follows: —

Construction, contract No. 113,	\$9,019 05
Incidentals,	509 91
Engineering and inspection,	1,224 90
<hr/>	
Total,	\$10,753 86

Dredging in the Mystic River for the widening and deepening of the channel in accordance with the recommendations of the State Board of Health has been in progress during the year between the outlet of Alewife Brook and Harvard Avenue. About 14,800 cubic yards of material have been excavated, at a total cost of \$6,555.72, or 44 cents per cubic yard.

The roadways of the parkway from High Street, Medford, to Main Street, Winchester, a distance of about $2\frac{1}{2}$ miles, have been surface-treated with a mixture of oil and water gas tar. The proportions used were 4 barrels of oil to 6 barrels of water gas tar. The roadway is constructed with a gravel surface, and is 36 feet in width. The work was done in May and June, at a total cost of \$1,758.34, or $3\frac{1}{4}$ cents per square yard.

The roadways of the balance of the parkway from Main Street to Middlesex Fells Reservation, a distance of about $\frac{1}{2}$ mile, and which are constructed with a macadam surface, were treated with a mixture of coal tar and water gas tar. This work was done in June, about 9,500 square yards were treated, and the total cost was \$462.04, or $4\frac{8}{10}$ cents per square yard.

Revere Beach Parkway. — The roadways of this parkway, the greater part of which have been previously treated with "tarvia," have been maintained during the year by patching or re-treating where necessary. About $\frac{2}{3}$ of a mile of gravel-surfaced roadway between Everett Avenue and Second Street, not previously treated, was given an application of oil and water gas tar. About $\frac{3}{4}$ of a mile of roadway partly gravel-surfaced and partly macadam-surfaced was treated with heavy asphalt oil known as "liquid asphalt."

With these various materials all the roadways of this parkway, a total length of about 5 miles, have been maintained in a dustless condition without the necessity of any watering, and their surfaces have been well and satisfactorily protected. The total cost of this work has been \$5,738.20.

Winthrop Parkway. — Surveys and plan have been made for additional taking along Ocean Avenue, Revere.

RESERVATIONS.

Blue Hills Reservation. — Surveys and construction plans have been made for a road from Forest Street to Hillside Street.

Charles River Reservation. — The vacant land owned by the Commonwealth, bounded by North Beacon Street, Brooks Street and Boston & Albany Railroad, has been graded and drained so that it may be used as a ball ground. The total cost of the work was \$284.73.

Middlesex Fells Reservation. — The work of building stone masonry foundation for police headquarters building off Forest Street, Medford, and grading the land about the building, has been done by the Rowe Contracting Company, under the direction of this department. The work was done between July 13, 1908, and Oct. 6, 1908, and the total cost was: —

Labor and materials,	.	.	.	.	.	.	\$4,821 78
Loam,	.	.	.	.	.	.	792 00
Incidentals,	.	.	.	.	.	.	143 17
Engineering and inspection,	.	.	.	.	.	.	328 25
							<hr/>
Total,	.	.	.	.	.	.	\$6,085 20

Pond Street and Woodland Road, a total length of about $1\frac{1}{2}$ miles of roadway, have been reconstructed with a broken-stone base and gravel surface. A heavy asphalt oil was combined with the gravel-surfacing material. The work has been done by the reservation forces, and the total cost has been \$9,211.15.

Hemlock Pool Road, a total length of about $\frac{4}{5}$ of a mile, has been reconstructed with a gravel surface. This work was also done by the reservation forces, and the total cost was \$948.03.

The surfaces of Main Street and Forest Street, from South Street, Stoneham, to the junction with Fellsway West, Medford, a total distance of about $2\frac{1}{2}$ miles, have been treated with mixtures of coal tar and water gas tar, and oil and water gas tar. One application was made, and some

slight patching has been done during the latter part of the season. The results were quite satisfactory in preventing dust and protecting the roadway surfaces for most of the year; but, on account of the unusually heavy traffic incidental to the construction of the electric railway and its road-bed, the condition of the southerly portion of the road has lately become somewhat poor.

Mystic River Reservation. — The work at Cradock Bridge which was being done by the Austin Engineering and Construction Company was abandoned by them about the last of December, 1907, when only about one-third completed. The work under their contract was to construct, of plain and reinforced concrete masonry, a part of the river walls, weirs, tide-gate chambers, sluices, and boat lock and additional span to Cradock Bridge, which work is for the purpose of improving the sanitary conditions in Mystic River and Alewife Brook by excluding the tide water and maintaining the water in the basin above this point at a permanent elevation.

During the winter, plans and specifications were prepared for the balance of the work at this location, which was not included in the previously described contract; and on May 5, 1908, the following bids were received for the whole of the masonry work, including that under contract with the Austin Engineering and Construction Company, which was left incomplete by them: —

Loring N. Farnum Company, Boston,	.	.	.	\$89,533 80
T. Stuart Son Company, Newton,	.	.	.	83,578 10
Coughlan & Sheils Company, Boston,	.	.	.	80,673 80
Coleman Brothers, Boston,	.	.	.	67,844 00

The contract was awarded to Coleman Brothers, the lowest bidders, the work was begun May 25, 1908, and is now in progress.

The method adopted in this work was to first enclose in a cofferdam the southerly half of the river for a distance of about 200 feet above and below Cradock Bridge, including the southerly arch of the bridge, and leaving the other opening free for the flow of the river. The work to be done within this dam was the construction of the additional span

to Cradock Bridge, which is for the passage of boats through the lock; one-half the weirs and tide-gate chambers; the boat lock, 60 by 15 feet; and a rollway for canoes and small boats.

The work in this half of the river has been practically completed, except the installation of lock gates, which are furnished under another contract, and the northerly half of the river has been shut off by cofferdams. The work of constructing the other half of the weirs, tide-gate chambers, floors and river walls in this portion of the river is now in progress, with good prospect of completion on or before Dec. 31, 1908.

The estimated cost of the work to Dec. 1, 1908, has been as follows:—

Previously reported:—

Construction and incidentals, contract

No. 107,	\$14,768 07	
Engineering and inspection,	1,942 37	
	<hr/>	\$16,710 44

Year ending Nov. 30, 1908:—

Incidentals,	\$645 13	
Engineering and inspection,	781 14	
	<hr/>	1,426 27

Total,		<hr/>	\$18,136 71
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Construction, contract No. 107A,	\$35,126 22	
Incidentals,	289 19	
Engineering and inspection,	3,313 28	
Total,	<hr/>	38,728 69

Construction, contract No. 114,	\$17,940 00	
Incidentals,	61 02	
Engineering and inspection,	598 48	
Total,	<hr/>	18,599 50

Grand total,		<hr/>	\$75,464 90
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Plans and specifications have been prepared for building and erecting eight patent backwater tide gates and frames, to be installed at Cradock Bridge. Mr. C. H. Dodd, who

controlled the patents on these gates, was employed in consultation on the above work. Four of the gates are 10 feet 9 inches by 9 feet 10 inches, and four are 10 feet 9 inches by 10 feet 10 inches; they are built of yellow pine, and are hung with special link hinges.

On March 18, 1908, bids for this work were received from the following:—

Lockwood Manufacturing Company, East Boston,	.	\$12,680 00
Atlantic Works, East Boston,	. . . . .	9,520 00
Gibby Foundry Company, East Boston,	. . . . .	7,210 00

The proposal of the Gibby Foundry Company was accepted, the gates and frames have been built and delivered, and four of them have been installed in the southerly gate chambers, which are completed.

Plans and specifications have been prepared for building and erecting two lock gates, frames and operating machinery. These gates are to be built of yellow pine, one 16 feet 8 inches by 20 feet 9 inches, and one 16 feet 8 inches by 13 feet 6 inches, and they are to be operated by hand power.

On Sept. 8, 1908, the following bids were received for this work:—

Lockwood Manufacturing Company, East Boston,	.	\$8,225 00
Gibby Foundry Company, East Boston,	. . . . .	7,798 00

The contract was awarded to the Gibby Foundry Company, and the work of building the gates is now in progress and nearly completed. The frames and some of the castings which were to be set in the concrete masonry have already been delivered and set.

The work of constructing concrete bridge for the Southern Division, Boston & Maine Railroad, over the river drive near West Medford, has been completed. The work was done by Coleman Brothers, and the total estimated cost, including the cost of work done by the Boston & Maine Railroad Company in connection with this work, has been as follows:—

Previously reported: —

Construction and incidentals, contract		
No. 109,	\$28,474	49
Engineering and inspection,	1,388	44
	<hr/>	\$29,862 93

Year ending Nov. 30, 1908: —

Construction, contract No. 109,	\$2,667	49
Temporary work incidental to above,	11,521	78
Incidentals,	104	82
Engineering and inspection,	742	25
	<hr/>	15,036 34

Total,	<hr/>	\$44,899 27
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Quincy Shore Reservation. — The work of surfacing and finishing the shore drive and beach slopes, which was in progress at the time of the last report, was suspended during the winter months, and the little work remaining to be done was finished in the early spring. The whole work was completed May 25, 1908, and opened for public use. The bathing opportunities afforded by the improved beaches along this shore have been extensively used during the past summer.

The total cost of this work has been as follows: —

Previously reported: —

Construction and incidentals, contract		
No. 105,	\$52,881	82
Engineering and inspection,	2,985	95
	<hr/>	\$55,867 77

Year ending Nov. 30, 1908: —

Construction, contract No. 105,	\$2,783	71
Incidentals,	663	14
Engineering and inspection,	757	80
	<hr/>	4,204 65

Total,	<hr/>	\$60,072 42
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The city of Quincy, by an order passed by its City Council, changed the grade of Beach Street at its entrance into the reservation drive, and thereby assumed the cost of any grade damages; and this Commission agreed to do the construction work necessary to bring the street up to the new

grade, so that a connection might be made with the shore drive. The work of construction was done by Coleman Brothers in connection with their contract, was begun May 26, 1908, and completed July 10, 1908. The total cost of this work, exclusive of engineering, was \$3,312.90.

Revere Beach Reservation. — The roadway surfaces which were treated last year partly with "tarvia" and partly with "asphaltoilene" have been maintained in satisfactory condition during this year by patching and a small amount of re-treatment. The northerly portion of the drive nearest the Northern Circle, about $\frac{2}{3}$ of a mile in length, which was not treated last year, has been given an application of "liquid asphalt," making the treated surface complete the whole length of the reservation drive.

A drinking fountain has been installed at a point about 800 feet north of Oak Island Street.

Stony Brook Reservation. — The Turtle Pond Road from West Glenwood Avenue, Hyde Park, to Washington Street, West Roxbury, has been resurfaced with gravel its entire length, about $1\frac{3}{4}$ miles. The work has been done by the reservation forces during September, October and November, and the total cost has been \$2,681.50.

Winthrop Shore Reservation. — The bridge over the Boston, Revere Beach & Lynn Railroad has been paved with wooden blocks, to replace the plank floor which was worn out. The work was done by the reservation forces, and the total cost was \$859.73.

The roadway of the shore drive, which was treated with "tarvia" last year, has been maintained in excellent condition during this year by very slight patching.

Plans and specifications have been prepared for the construction of a sea wall along the northerly portion of the reservation near the United States government property. The wall is to be constructed of rough boulder stone masonry, laid in Portland cement, the stone to be obtained from the shore near the location of the wall.

On Oct. 5, 1908, the following bids were received for this work: —



WINTHROP SHORE RESERVATION.—Sea Wall near Grover's Cliff.

Thomas A. Nolan, Jamaica Plain,	\$5,448 00
Kennelly & Gaddis, Boston,	4,980 00
W. A. Murtfeldt Company, Boston,	3,960 00
W. H. Ellis, Boston,	3,742 00
Rowe Contracting Company, Melrose,	3,730 00
Lawler Brothers, Charlestown,	3,590 00
David J. Sheehan Company, Lynn,	3,460 00
Hamlin & Ryan, Salem,	2,420 00

The contract was awarded to Hamlin & Ryan, the work was begun Oct. 12, 1908, and is now in progress.

The total estimated cost to Dec. 1, 1908, has been as follows: —

Construction, contract No. 117,	\$2,095 60
Engineering and inspection,	340 92
Total,	<hr/> \$2,436 52

GENERAL.

All bridges under the care and control of this Commission have been inspected during the month of October, and report made to the Secretary of their condition, with recommendations for repairs.

Sixty-three permits for work in the reservation and parkways have been granted during the year to cities, towns, corporations and individuals, which have required the supervision and inspection of this department. The total cost of this inspection has been \$449.07.

Practically all of the roadways of the parkways and reservations, which are subjected to automobile traffic, have been treated with some material for their preservation. Generally the results have been satisfactory, and all sprinkling with water to lay the dust on these roads has been abolished, as it has been unnecessary. The table appended gives the details of this work, with the costs of the various treatments.

On account of the constantly increasing amount of necessary road repairs in the larger divisions, I recommend that a small force be organized in each of these divisions which shall give particular and constant attention to this class of work, and that foremen be placed in charge who are familiar

with the new methods of road construction and repair necessary to withstand the present traffic.

The following tables are appended to this report:—

TABLE 1. Lengths of parkways.

TABLE 2. Summary of plan work.

TABLE 3. Summary of vouchers.

TABLE 4. Summary of cost of road repairs and maintenance.

TABLE 5. Prices for items of construction.

Respectfully submitted,

JOHN R. RABLIN,

Engineer.

DEC. 1, 1908.

TABLE 1. — *Length of Parkways, corrected to Dec. 1, 1908.*

DESCRIPTION.	Constructed (Miles).	Under Construc- tion (Miles).	Remainder (Miles).	Totals (Miles).
Alewife Brook: Mystic River to Spy Pond, Somerville, Arlington, Cambridge and Belmont,	—	—	2.56	2.56
Blue Hills: Mattapan Square to Harland Street Entrance of Blue Hills Reservation, Boston and Milton,	2.27	—	—	2.27
Fresh Pond: Mount Auburn Street to Huron Avenue, Cambridge, . . . . .	.52	—	—	.52
Furnace Brook: Merrymount Park to Blue Hills Reservation, Quincy,	1.49	.84	1.39	3.72
Lynn Fells Parkway: Middlesex Fells Reservation to Green Street, Stoneham and Melrose, . . . . .	.68	.36	—	1.04
Lynnway: Revere Beach Reservation to northerly side of Saugus River, Revere and Lynn, . . . . .	.69	—	—	.69
Middlesex Fells: Broadway to Middlesex Fells Reservation, Somerville, Medford and Malden,	5.11	—	—	5.11
Mystic Valley: High Street to Middlesex Fells Reservation, Medford and Winchester,	2.90	—	—	2.90
Nahant Beach: Lynn Line at Washington Street to Spring Road, Nahant, . . . . .	.25	—	1.98	2.23
Neponset River: junction of River Street and Damon Street to Blue Hills Reservation, . . . . .	.53	—	1.71	2.24

TABLE 1. — *Length of Parkways, etc.* — Concluded.

DESCRIPTION.	Constructed (Miles).	Under Construc- tion (Miles).	Remainder (Miles).	Totals (Miles).
Revere Beach: Revere Beach Reserva- tion to Middlesex Fells Parkway and Mystic River Reservation, Revere, Chelsea, Everett and Medford, . . .	5.24	—	—	5.24
Winthrop Parkway: Charles Eliot Circle to Leverett Avenue, Revere, . . .	—	—	.42	.42
Totals,	19.68	1.20	8.06	28.94

TABLE 2. — *Summary of Maps and Plans prepared during the Year
ending Nov. 30, 1908, omitting Blue and Other Prints.*

	Abandonments and Con- veyances.	Construction.	Copies.	Entrances.	General.	Land and Settlement.	Restrictions.	Takings and Conveyances to Commonwealth.	Topographical.	Working Plans (Office).	Totals.
<i>Parkways.</i>											
Alewife Brook,	—	4	3	—	—	23	—	23	—	8	61
Furnace Brook,	3	4	1	—	—	—	—	4	1	1	14
Lynn Fells,	6	6	—	1	—	1	—	2	—	—	16
Middlesex Fells,	2	13	—	—	—	2	5	—	—	—	22
Mystic Valley,	—	7	—	—	—	3	—	—	—	8	18
Neponset River,	—	—	—	—	—	—	—	—	3	—	3
Old Colony Ave.,	—	—	1	—	2	3	—	—	—	—	6
Revere Beach,	1	—	—	1	—	2	3	4	—	1	12
Winthrop,	—	—	—	—	—	—	—	2	—	—	2
Woburn,	—	—	—	—	—	1	—	—	4	1	6
Totals,	12	34	5	2	2	35	8	35	8	19	160
<i>Reservations.</i>											
Blue Hills,	—	6	—	—	—	1	—	—	2	1	10
Charles River,	—	2	—	—	4	4	1	2	—	11	24
Hart's Hill,	2	—	1	—	—	—	—	—	—	—	3
Lynn Shore,	4	8	—	—	—	1	—	—	—	8	21
Middlesex Fells,	—	11	—	—	—	—	—	—	1	5	17
Mystic River,	2	19	—	—	—	—	—	4	—	4	29
Nantasket Beach,	—	—	—	—	—	—	—	1	—	—	1
Neponset River,	—	—	1	—	—	—	—	3	—	—	4
Quincy Shore,	—	29	—	1	—	4	—	—	—	8	42
Revere Beach,	4	—	—	—	—	1	—	—	—	—	5
Stony Brook,	2	—	—	—	3	—	—	—	—	—	5
Winthrop Shore,	1	1	—	—	—	1	—	—	—	1	4
Totals,	15	76	2	1	7	12	1	10	3	38	165
Grand totals,	27	110	7	3	9	47	9	45	11	57	325

Furnace Brook Parkway,	\$1,005 20	—	—	—	364 69	—	—	—	2 25	10	367 04	1,372 24
Lynn Fells Parkway,	17,758 28	—	—	—	1,518 81	—	—	—	40 50	13 07	1,598 33	19,356 61
Lynnway,	1,522 50	—	—	—	10 82	—	—	—	—	1 20	12 02	1,534 52
Middlesex Fells Parkway,	60,600 25	—	—	—	4,524 06	—	—	52 78	112 63	58 22	4,864 45	65,464 70
Middlesex Fells Roads,	—	—	—	—	203 57	—	—	—	6 00	6 70	306 27	306 27
Mystic Valley Parkway,	15,653 80	—	—	—	1,667 08	—	—	—	22 56	30 29	1,780 77	17,434 57
Nahant Beach Parkway,	—	—	—	—	28 22	—	—	—	—	95	29 17	29 17
Neponset River Parkway,	—	—	—	—	214 73	—	—	—	13 50	4 17	232 40	232 40
Revere Beach Parkway,	2,314 10	—	—	—	210 56	—	—	—	—	5 70	216 26	2,530 36
Winechester-Woburn Parkway,	—	—	—	—	178 53	—	—	—	—	3 96	182 49	182 49
Winthrop Parkway,	—	—	—	—	105 00	—	—	—	—	20	105 20	105 20
Totals,	\$98,854 13	\$6 69	\$5 40	\$12 09	\$13,286 03	\$94 29	\$619 95	\$254 23	\$235 46	\$14,489 96	\$113,356 18	
<i>Metropolitan Parks System Maintenance.</i>												
General expense,	—	\$20 90	\$3 15	\$24 05	\$6,490 00	—	\$213 60	\$1 75	—	\$6,705 35	\$6,729 40	
Quincy Shore Reservation,	\$100 60	—	—	—	—	—	—	—	—	—	100 60	
Totals,	\$100 60	\$20 90	\$3 15	\$24 05	\$6,490 00	—	\$213 60	\$1 75	—	\$6,705 35	\$6,830 00	
<i>Metropolitan Parks Boulevard Maintenance.</i>												
General expense,	—	\$8 70	—	\$8 70	\$2,163 32	\$2 61	\$72 13	\$50 50	—	\$2,288 56	\$2,297 26	
<i>Metropolitan Parks Expense Fund.</i>												
Engineering,	—	\$1,850 00	—	\$1,850 00	—	\$8 42	—	—	—	\$8 42	\$1,858 42	
Charles River Speedway,	\$284 73	—	—	—	—	—	—	—	—	—	284 73	
Middlesex Fells Parkway,	2,018 78	—	—	—	—	—	—	—	—	—	2,018 78	
Nantasket Beach Reservation,	—	—	—	—	\$12 50	—	—	\$12 51	\$0 80	25 81	25 81	
Quincy Shore Reservation,	288 90	—	—	—	—	—	—	—	—	—	288 90	
Totals,	\$2,592 41	\$1,850 00	—	\$1,850 00	\$12 50	\$8 42	—	\$12 51	\$0 80	\$34 23	\$4,476 64	
<i>Old Colony Avenue Parkway, and Neponset Bridge.</i>												
Grand totals,	\$197,463 94	\$1,986 29	\$55 51	\$2,041 80	\$31,785 22	\$188 70	\$1,177 25	\$502 05	\$400 85	\$34,054 07	\$233,559 81	
<i>Credit. — Metropolitan Parks Expense Fund.</i>												
Engineering,	—	—	—	—	—	\$11 68	\$3 37	\$151 58	—	\$166 63	\$166 63	
Net expenditure,	\$197,463 94	\$1,986 29	\$55 51	\$2,041 80	\$31,785 22	\$177 02	\$1,173 88	\$350 47	\$400 85	\$33,887 44	\$233,393 18	

TABLE 4. — Summary of Cost of Road Repairs and Maintenance, 1908.

PARKWAY OR RESERVATION.	Length (Feet).	Width of Roadway (Feet).	Square Yards.	COST PER SQUARE YARD IN DETAIL.						Total Cost (Cents).	Remarks.	Location.
				BITUMINOUS BINDER.								
				Labor (Cents).	Broken Stone (Cents).	Sand (Cents).	Gravel (Cents).	Kind of Material.	Cost (Cents).			
Blue Hills Parkway,	15,200	26 and 36	46,815	%	-	-	-	Asphaltolene (oil),	6	6%	Surface treatment,	Mattapan Square to Canton Avenue.
Middlesex Fells Parkway.	15,800	26, 30, 35, 40	58,061	8½	11½	-	-	Tarvia, and tar and asphalt.	8¼	28	Resurfacing,	Broadway, Somerville, to Emerald Street, Malden.
Middlesex Fells Parkway.	7,510	30, 35, 40	28,500	18½	1	-	-	Tar and asphalt,	2½	5½	Surface treatment,	Broadway to Revere Beach Parkway.
Middlesex Fells Parkway.	10,535	26 and 36	42,178	-	-	1½	-	Rotar (coal tar and water gas tar).	4½	4½	Surface treatment,	Revere Beach Parkway to Forest Street, Medford.
Middlesex Fells Parkway.	2,740	26 and 36	8,581	-	-	1½	-	Tarvine (oil and water gas tar).	3¼	3½	Surface treatment,	Fellsway East, Highland Avenue, to Reservation.
Revere Beach Parkway,	3,300	36	13,767	1½	-	2½	-	Tarvine (oil and water gas tar).	3¾	3½	Surface treatment,	Everett Avenue to Second Street.
Revere Beach Parkway,	2,040	26 and 36	6,020	-	-	-	-	Liquid asphalt (oil),	6	6	Surface treatment,	Beachmont Bridge to Winthrop Avenue and Winthrop Avenue to Railroad Avenue.
Revere Beach Parkway,	2,550	36	10,150	1	-	-	½	Liquid asphalt (oil),	6	7½	Surface treatment,	Winthrop Avenue to Stowers Court.
Revere Beach Parkway,	21,520	22 to 36	92,124	1½	14½	-	-	Tarvia (refined tar),	17½	4½	Re-treatment,	Middlesex Fells Parkway to Winthrop Avenue, Revere.
Mystic Valley Parkway,	12,692	36	52,893	-	-	-	-	Tarvine,	3¼	3¾	Surface treatment,	High Street, West Medford, and Main Street, Winchester.
Mystic Valley Parkway,	2,415	40	9,521	-	-	¾	-	Rotar,	4½	4½	Surface treatment,	Main Street, Winchester, to Fells Reservation.

Neponset River Parkway.	2,780	26	8,034	$\frac{1}{2}$	-	-	Tarline, . . .	$\frac{4}{4}$	$4\frac{1}{2}$	358 95	Surface treatment,	Brush Hill Road to Blue Hill Avenue.
Lynnway, . . .	2,365	40	10,510	$1\frac{1}{10}$	-	-	Tarvia, . . .	$2\frac{1}{2}$	$5\frac{1}{2}$	581 11	Re-treatment, .	Northern Circle to Saugus River.
Lynn Shore and Nahant Beach Drive.	7,180	40	34,817	$\frac{1}{2}$	-	-	Cal. chloride, . .	$1\frac{1}{4}$	2	672 90	Surface treatment,	Entire length.
Revere Beach Reservation.	2,481	40	9,372	-	-	-	Liquid asphalt, . .	3	3	281 16	Re-treatment, .	Oak Island Street to Station 105+81.
Revere Beach Reservation.	3,519	40	13,260	$2\frac{1}{2}$	$\frac{9}{10}$	-	Liquid asphalt, . .	6	$9\frac{1}{4}$	1,206 89	Surface treatment,	Station 105+81 to Northern Circle.
Revere Beach Reservation.	4,400	40	16,620	$1\frac{1}{10}$	-	-	Tarvia, . . .	$2\frac{1}{4}$	$5\frac{1}{2}$	910 35	Re-treatment, .	Revere Street to Shirley Avenue.
Nantasket Beach Reservation.	3,760	40	24,935	$\frac{2}{3}$	-	-	Cal. chloride, . .	$2\frac{1}{4}$	3	743 07	Surface treatment,	County Road.
Middlesex Fells Reservation.	6,170	18	12,340	10%	$20\frac{1}{2}$	-	Asphalt flux (oil),	7	65%	8,051 97	Reconstruction, .	Pond Street and Woodland Road.
Middlesex Fells Reservation.	995	18	1,990	10%	$20\frac{1}{2}$	-	-	-	$58\frac{1}{4}$	1,159 18	Reconstruction, .	Pond Street and Woodland Road.
Middlesex Fells Reservation.	7,860	18	15,961	-	-	-	Tarline, . . .	3	3	478 83	Surface treatment,	Elm Street to Bear Hill Road (Forest and Main streets).
Middlesex Fells Reservation.	3,010	22	7,686	$\frac{1}{2}$	-	$\frac{2}{10}$	Rotar, . . .	$5\frac{1}{10}$	$6\frac{1}{10}$	471 62	Surface treatment,	Bear Hill Road to Meadow (Main Street).

TABLE 5. — Prices paid for Principal Items of Construction.

CONTRACT No.		PARKWAYS.			RESERVATIONS.			
		Middlesex Fells.	Lynn Fells.	Mystic Valley.	Middlesex Fells.	Mystic River.		Winthrop Shore.
		108	111	113	115	107a	114	117
<i>Drains.</i>								
	24-inch vitrified pipe (lineal foot),	\$2 00	-	-	-	-	-	-
	18-inch vitrified pipe (lineal foot),	1 60	-	-	-	-	-	-
	15-inch vitrified pipe (lineal foot),	1 25	\$1 00	-	-	-	-	-
	12-inch vitrified pipe (lineal foot),	60	60	-	-	-	-	-
	10-inch vitrified pipe (lineal foot),	45	50	-	-	-	-	-
	6-inch vitrified pipe (lineal foot),	30	40	-	-	-	-	-
<i>Edgestones.</i>								
	Furnishing and setting, straight (lineal foot),	1 00	1 00	-	-	-	-	-
	Furnishing and setting, curved (lineal foot),	1 50	1 30	-	-	-	-	-
<i>Grading.</i>								
	Earth excavation (cubic yard),	40	50	\$0 45	\$1 00	\$0 90	\$0 90	\$0 30
	Rock excavation (cubic yard),	1 30	1 70	-	3 00	-	-	-
	Rock excavation, crushed (cubic yard),	1 90	-	-	-	-	-	-

Gutters.

Cobble-stone (square yard),	75	-	-	-	-	-	-	-	-
Concrete (square yard),	-	1 30	-	-	-	-	-	-	-

Masonry.

Concrete, 1 : 3 : 6 (cubic yard),	-	-	6 50	8 50	9 00	-	-	-	-
Reinforced concrete, 1 : 2½ : 5 (cubic yard),	-	-	-	-	11 00	16 00	-	-	-
Moulded block concrete (cubic yard),	-	-	5 00	-	-	-	-	-	-
Concrete catch-basins (each),	30 00	40 00	-	-	-	-	-	-	-
Boulder masonry (cubic yard),	-	-	-	-	-	-	-	-	2 80

Piles.

Spruce piles (lineal foot),	-	-	-	-	25	-	-	-	-
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Surfacing.

Gravel roadway (square yard),	45	-	-	-	-	-	-	-	-
Broken-stone roadway (square yard),	30	-	-	-	-	-	-	-	-
Loam (cubic yard),	30	30	-	-	-	-	-	-	-
Broken-stone walk surfacing (square yard),	30	30	-	-	-	-	-	-	-
Loam, including furnishing (cubic yard),	1 00	1 25	-	-	-	-	-	-	-

Fence.

Iron fence (lineal foot),	-	-	2 50	-	-	-	-	-	-
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FINANCIAL STATEMENT.

DEC. 1, 1907, to DEC. 1, 1908.

Metropolitan Parks Loan Fund,	\$8,835,000 00
Receipts added to Loan before June 1, 1901,	198,334 01
	<u>\$9,033,334 01</u>

Expenditures.

Blue Hills Reservation: —	
Land,	\$507 05
Engineering: —	
Pay rolls,	\$71 05
Expenses,	9 81
	<u>80 86</u>
	\$587 91
Middlesex Fells Reservation: —	
Engineering: —	
Pay rolls,	\$95 37
Expenses,	1 20
	<u>\$96 57</u>
Landscape Architects, services,	25 00
	<u>121 57</u>
Revere Beach Reservation: —	
Engineering: —	
Pay rolls,	\$167 65
Expenses,	20 33
	<u>\$187 98</u>
	187 98
Stony Brook Reservation: —	
Engineering: —	
Pay rolls,	\$32 50
Expenses,	15
	<u>\$32 65</u>
	32 65
Beaver Brook Reservation: —	
Engineering: —	
Pay rolls,	\$117 70
Expenses,	20
	<u>\$117 90</u>
	117 90
Hemlock Gorge Reservation: —	
Engineering, pay rolls,	\$1 00
	<u>1 00</u>
Charles River Reservation: —	
Contribution to cost of Galen Street Bridge, Watertown,	
	\$10,000 00
Engineering: —	
Pay rolls,	\$385 24
Expenses,	6 96
	<u>392 20</u>
	<u>10,392 20</u>
Amounts carried forward,	\$11,441 21
	<u>\$9,033,334 01</u>

<i>Amounts brought forward,</i>		\$11,441 21	\$9,033,334 01
Neponset River Reservation: —			
Land,		\$400 00	
Engineering: —			
Pay rolls,	\$53 65		
Expenses,	5 80		
		59 45	
			459 45
Mystic River Reservation: —			
Construction: —			
Contracts: —			
Austin Engineer-			
ing and Con-			
struction Co.,	\$911 20		
Coleman Bros.,	47,105 48		
Gibby Foundry			
Co.,	5,407 50		
		\$53,424 18	
Southern Division Bridge,	11,521 78		
Dredging,	1,425 80		
Labor and materials,	1,608 96		
		\$67,980 72	
Engineering: —			
Pay rolls,	\$4,855 24		
Expenses,	492 16		
		5,347 40	
Wheelwright & Haven, architects,		266 13	
			73,594 25
Lynn Shore Reservation: —			
Land,		\$250 00	
Construction: —			
Contracts: —			
Coleman Bros.,	\$21,955 14		
W. A. Snow Iron			
Works,	3,134 56		
		\$25,089 70	
Labor and materials,	52 91		
		25,142 61	
Engineering: —			
Pay rolls,	\$722 58		
Expenses,	52 61		
		775 19	
			26,167 80
Quincy Shore Reservation: —			
Construction: —			
Contracts: —			
Coleman Bros.,	\$13,213 56		
Newall & Snow-			
ling Construc-			
tion Co.,	740 69		
		\$13,954 25	
Labor and materials,	3,492 36		
		\$17,446 61	
Engineering: —			
Pay rolls,	\$1,510 81		
Expenses,	127 07		
		1,637 88	
			19,084 49
Winthrop Shore Reservation: —			
Construction: —			
Contract, Hamlin & Ryan,	\$532 44		
<i>Amounts carried forward,</i>	\$532 44	\$130,747 20	\$9,033,334 01

<i>Amounts brought forward,</i>		\$532 44	\$130,747 20	\$9,033,334 01
Engineering: —				
Pay rolls,	\$213 78			
Expenses,	18 95			
		232 73		
Advertising contracts,		85 04		
			850 21	
Hart's Hill Reservation: —				
Engineering: —				
Pay rolls,	\$98 30			
Expenses,	10			
		\$98 40		
			98 40	
General expense: —				
Engineering: —				
Pay rolls,	\$696 62			
Expenses,	473 71			
		\$1,170 33		
Legal,		1,487 64		
Claims,		733 33		
			3,391 30	
			\$135,087 11	
Amounts charged to Dec. 1, 1907,		8,597,047 01		
			\$8,732,134 12	
Balance in hands of State Treasurer,			\$301,199 89	

METROPOLITAN PARKS LOAN FUND, SERIES II.

Metropolitan Parks Loan Fund, Series II.,	\$5,135,000 00
Receipts added to loan before June 1, 1901,	29,907 41
	<u>\$5,164,907 41</u>

Expenditures.

Blue Hills Parkway: —				
Engineering: —				
Pay rolls,	\$19 96			
Expenses,	4 11			
		\$24 07		
			\$24 07	
Middlesex Fells Parkway: —				
Land,	\$2,500 00			
Construction: —				
Contracts: —				
Rowe & Perini,	\$45,946 87			
Frank Williams				
& Co.,	5,141 86			
		\$51,088 73		
Labor and materials,	593 69			
		51,682 42		
Engineering: —				
Pay rolls,	\$4,701 96			
Expenses,	354 84			
		5,056 80		
Landscape Architects: —				
Services,	\$289 08			
Expenses,	17 58			
		306 66		
<i>Amounts carried forward,</i>		\$59,545 88	\$24 07	\$5,164,907 41

<i>Amounts brought forward,</i>	\$59,545 88	\$24 07	\$5,164,907 41
Police station	25,372 06		
Loam,	792 00		
Advertising contracts,	109 43		
Miscellaneous,	43 06		
		85,862 43	
Mystic Valley Parkway: —			
Construction: —			
Contracts: —			
Coleman Bros.,	\$147 37		
James H. Fan-			
non,	5,811 92		
	\$5,959 29		
Dredging,	3,933 49		
Labor and materials,	1,528 92		
		\$11,421 70	
Engineering: —			
Pay rolls,	\$2,372 04		
Expenses,	203 40		
		2,575 44	
Landscape Architects: —			
Services,	\$17 18		
Expenses,	90		
		18 08	
Advertising contracts,		112 99	
Miscellaneous,		44 66	
Winchester Fund: —			
Tarine on road,	\$1,129 19		
Substation,	486 20		
Aberjona Bridge,	248 40		
Reoiling parkway,	117 20		
Bath-houses,	32 92		
		2,013 91	
		16,186 78	
Revere Beach Parkway: —			
Construction: —			
Contracts: —			
American Bridge Co.,	\$4,742 89		
Metropolitan Contracting Co.,	5,138 85		
		\$9,881 74	
Engineering: —			
Pay rolls,	\$229 56		
Expenses,	9 10		
		238 66	
Legal,		100 00	
Payment to Boston & Northern and Boston & Revere electric street railway companies of cost of changing location from Washburn Avenue, Revere.		10,000 00	
		20,220 40	
Neponset River Parkway: —			
Engineering: —			
Pay rolls,	\$216 23		
Expenses,	17 67		
		\$233 90	
Landscape Architects: —			
Services,	\$27 24		
Expenses,	40		
		27 64	
		261 54	
<i>Amounts carried forward,</i>	\$122,555 22	\$5,164,907 41	

<i>Amounts brought forward,</i>		\$122,555 22	\$5,164,907 41
Fresh Pond Parkway: —			
Engineering, pay rolls,	\$3 33		
			3 33
Furnace Brook Parkway: —			
Land,	\$14,275 00		
Construction: —			
Contract, Arthur H. Tucker,	\$2,665 28		
Labor and materials,	2,005 20		
		4,670 48	
Engineering: —			
Pay rolls,	\$396 75		
Expenses,	6 75		
		403 50	
Claims,		100 00	
Architects,		100 00	
			19,548 98
Nahant Beach Parkway: —			
Engineering: —			
Pay rolls,	\$340 83		
Expenses,	5 63		
		\$346 46	
			346 46
Lynn Fells Parkway: —			
Land,	\$2,481 50		
Construction: —			
Contracts: —			
Coleman Bros.,	\$17,649 51		
Rowe & Perini,	6,142 90		
		\$23,792 41	
Labor and materials,	8,530 66		
		32,323 07	
Engineering: —			
Pay rolls,	\$1,895 11		
Expenses,	120 11		
		2,015 22	
Landscape Architects: —			
Services,	\$136 67		
Expenses,	4 79		
		141 46	
			36,961 25
Winthrop Parkway: —			
Land,	\$5,938 92		
Engineering: —			
Pay rolls,	\$96 00		
Expenses,	20		
		96 20	
Claims,		10 00	
			6,045 12
Alewife Brook Parkway: —			
Land,	\$25,967 79		
Engineering: —			
Pay rolls,	\$3,456 41		
Expenses,	162 90		
		3,619 31	
Landscape Architects: —			
Services,	\$328 72		
Expenses,	7 12		
		335 84	
Legal,		2,496 75	
			32,419 69
<i>Amounts carried forward,</i>		\$217,880 05	\$5,164,907 41

<i>Amounts brought forward,</i>		\$217,880 05	\$5,164,907 41
Lynnway: —			
Construction: —			
Contracts: —			
American Bridge Co.,	\$3,816 83		
Metropolitan Contracting Co.,	9,615 91		
		\$13,432 74	
Engineering: —			
Pay rolls,	\$20 82		
Expenses,	1 20		
		22 02	
Legal,		100 00	
			13,554 76
Charles River Speedway: —			
Engineering: —			
Pay rolls,	\$66 63		
Expenses,	2 75		
		\$69 38	
			69 38
Blue Hills Roads: —			
Engineering: —			
Pay rolls,	\$496 00		
Expenses,	17 65		
		\$513 65	
			513 65
Middlesex Fells Roads: —			
Engineering: —			
Pay rolls,	\$293 57		
Expenses,	12 70		
		\$306 27	
			306 27
General expense: —			
Engineering: —			
Pay rolls,	\$388 06		
Expenses,	462 25		
		\$850 31	
Legal,		459 67	
Claims,		100 00	
			1,409 98
			\$233,734 09
Amounts charged to Dec. 1, 1907,		4,641,459 86	
			\$4,875,193 95
Balance in hands of State Treasurer,			\$289,713 46

METROPOLITAN PARKS SYSTEM MAINTENANCE.

Appropriation Dec. 1, 1907, to Dec. 1, 1908, \$325,000 00

Expenditures.

General expense: —			
Police: —			
Pay rolls,	\$63,268 61		
Equipment,	4,734 64		
		\$68,003 25	
<i>Amounts carried forward,</i>		\$68,003 25	\$325,000 00

Amounts brought forward, \$68,003 25

\$325,000 00

Salaries: —

General office,	\$9,686 66	
Law department,	2,140 00	
Engineering department,	6,490 00	
		18,316 66
Engineering supplies,		239 40
Rent, lighting and care of offices,		2,955 85
Telephones,		851 00
Annual report, one-half,		692 15
Stationery and printing,		395 82
Maps and books,		315 27
Postage, etc.,		227 79
Travelling,		140 91
Extra clerical assistance,		124 28
Advertising rules,		101 22
Filing cabinets, cards, etc.,		70 52
Account books,		47 75
Office repairs,		47 05
Reupholstering chairs,		42 00
Automobile and motorcycle fees,		37 00
Towel supply,		35 95
Reports on hearings (Bacon & Burpee),		32 00
Spring water,		28 40
Photographs and slides,		20 75
Storing awnings,		16 10
Revolver and holster for paymaster,		14 07
Ice,		13 77
Office supplies,		11 30
Cleaning carpet,		8 10
Rent of typewriter,		7 00
Typewriter supplies,		6 00
Recording papers,		5 84
Oak chair,		5 60
Typewriter repairs,		5 23
Horse tags,		4 75
Soap,		3 82
Rubber stamps,		3 55
Moving desk, etc.,		3 00
Rug,		2 70
Clock,		2 25

\$92,838 10

Blue Hills Reservation: —

Labor,	\$19,266 35	
Teaming,	567 50	
Keep of horses,	3,849 69	
		\$23,683 54
Labor and supplies, gypsy and brown-tail moth work,		14,677 15
General supplies,		2,866 64
Telephones,		335 72
Gasolene pump,		163 40
Lighting offices,		162 11
Water rates,		117 60
Stationery and printing,		78 39
Repairs,		70 97
Express,		70 57
Laundry,		63 50
Speedometer,		60 00
Shrubs,		30 25
Travelling,		7 48
Canvas suits,		7 40

Amounts carried forward,

\$42,394 72

\$92,838 10

\$325,000 00

Amounts brought forward, \$42,394 72 \$92,838 10 \$325,000 00

Cleaning cesspool,	6 00
Chair,	5 50
Clock,	4 90
Fire extinguisher,	2 50

42,413 62

Middlesex Fells Reservation: —

Labor,	\$13,514 87
Teaming,	1,803 00
Keep of horses,	2,780 77
	<hr/>
	\$18,098 64

Labor and supplies, gypsy and brown-tail moth work,	73,048 63
Resurfacing roads,	9,998 78
General supplies,	1,724 74
Street watering or its equivalent,	1,499 26
Street lighting,	658 46
Telephones,	199 23
Stationery and printing,	149 08
Travelling,	134 04
Flag staffs and flags,	117 57
Lighting offices,	101 88
Sanitary,	75 00
Express,	68 26
Grappels,	46 40
Canvas suits,	33 40
Repairs,	28 34
Incubator and brooder,	16 66
Waste barrels,	15 30
Water rates,	15 00
Water cooler,	8 60
Chairs,	6 75
Stools,	3 00
Post-office box,	60
Weighers fee,	20

106,047 82

Revere Beach Reservation: —

Labor,	\$10,977 76
Teaming,	35 00
Keep of horses,	1,520 65

\$12,533 41

Street lighting,	4,377 88
Street watering or its equivalent,	3,076 94
General supplies,	1,078 15
Telephones,	464 75
Travelling,	158 07
Awnings,	153 50
Stationery and printing,	138 72
Park seats,	103 50
Express,	84 44
Lighting offices,	83 06
Water rates,	47 00
Flag staff and flags,	40 00
Repairs,	38 05
Laundry,	36 49
Waste barrels,	32 10
Drinking-fountain fixtures,	14 80
Buoys,	11 73
Miscellaneous,	9 25
Directory,	4 00

22,485 84

Amounts carried forward, \$263,785 38 \$325,000 00

Amounts brought forward, \$263,785 38 \$325,000 00

Stony Brook Reservation: —

Labor,	\$4,231 10
Teaming,	815 00
Keep of horses,	591 28
	<hr/>
	\$5,637 38

Labor and supplies, gypsy and brown-tail moth

work,	2,902 50
General supplies,	342 26
Telephones,	73 92
Range,	43 50
Repairs,	33 81
Water rates,	13 00
Stationery and printing,	6 06
	<hr/>

9,052 43

Beaver Brook Reservation: —

Labor,	\$1,575 80
Keep of horses,	191 76
	<hr/>
	\$1,767 56

Labor and supplies, gypsy and brown-tail moth

work,	479 52
General supplies,	135 07
Repairs,	103 84
Telephones,	41 52
Water rates,	22 08
Flags,	16 65
Sewer rates,	4 50
Travelling,	4 40
Express,	1 60
	<hr/>

2,576 74

Charles River Reservation: —

Riverside Section: —

Labor,	\$5,063 05
Teaming,	264 27
Keep of horses,	340 80
	<hr/>
	\$5,668 12

Labor and supplies, gypsy and brown-tail moth

work,	4,294 27
General supplies,	1,134 21
Lighting offices,	189 94
Telephones,	132 55
Life-saving apparatus,	110 92
Travelling,	71 52
Fire extinguishers,	63 00
Float, Forest Grove,	54 00
Stationery and printing,	50 43
Water rates,	48 12
Repairs,	33 46
Desk,	30 00
Street lighting,	23 50
Express,	23 44
Flags,	22 30
Cedar chest,	20 00
Shrubs,	8 95
Chair,	6 00
Physician,	6 00
	<hr/>

11,990 73

Charles River Reservation: —

Speedway Section: —

Labor,	\$8,003 28
Teaming,	1,263 50
Keep of horses,	2,091 38
	<hr/>
	\$11,358 16

Amounts carried forward, \$11,358 16 \$287,405 28 \$325,000 00

<i>Amounts brought forward,</i>	\$11,358 16	\$287,405 28	\$325,000 00
Street watering or its equivalent,	2,195 64		
General supplies,	1,635 72		
Street lighting,	1,597 96		
Labor and supplies, gypsy and brown-tail moth work,	1,501 11		
Loam,	700 00		
Crushed stone and gravel,	256 98		
Telephones,	121 87		
Flag staff and flags,	109 65		
Water rates,	89 30		
Repairs,	84 70		
Lighting offices,	78 21		
Travelling,	65 75		
Stationery and printing,	51 96		
Laundry,	47 31		
Canvas suits,	15 70		
Physician,	8 00		
Express,	6 74		
Linen duster,	5 15		
Fire extinguisher,	2 50		
		19,932 41	
Neponset River Reservation: —			
Labor,	\$116 07		
Keep of horses,	170 54		
		\$286 61	
Labor and supplies, gypsy and brown-tail moth work,	405 25		
Telephones,	33 30		
Water rates,	7 46		
Stretcher,	6 50		
General supplies,	2 67		
		741 79	
Mystic River Reservation: —			
Labor,	\$101 13		
Labor and supplies, gypsy and brown-tail moth work,	450 67		
Row boat,	57 90		
Telephones,	42 10		
		651 80	
Lynn Shore Reservation: —			
Labor,	\$2,798 66		
Keep of horses,	254 50		
		\$3,053 16	
Street lighting,	2,445 55		
Street watering or its equivalent,	1,291 55		
General supplies,	493 97		
Crushed stone and gravel,	42 63		
Water rates,	17 00		
		7,343 86	
Quincy Shore Reservation: —			
Labor,	\$1,888 35		
Teaming,	329 38		
Keep of horses,	2 12		
		\$2,219 85	
Street watering or its equivalent,	689 28		
General supplies,	198 17		
Telephones,	85 45		
		3,192 75	
Winthrop Shore Reservation: —			
Labor,	\$1,842 61		
Keep of horses,	252 43		
		\$2,095 04	
<i>Amounts carried forward,</i>	\$2,095 04	\$319,267 59	\$325,000 00

<i>Amounts brought forward,</i>	\$2,095 04	\$319,267 89	\$325,000 00
Street watering or its equivalent,	778 07		
Street lighting,	614 56		
Paving blocks,	448 90		
General supplies,	182 69		
Boat covers,	25 00		
Chairs,	4 50		
		4,148 76	
			323,416 65
Balance,			\$1,583 35

BAND CONCERTS.

Appropriation,	\$25,000 00
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Expenditures.

Blue Hills Reservation: —

Band,	\$950 64	
		\$950 64

Middlesex Fells Division: —

Band,	\$1,882 30	
Lighting band stands,	62 00	
Setting up and storing band stand and chairs,	50 00	
Extra police,	35 00	
Shades,	18 65	
Water cooler,	8 55	
Ice,	1 00	
		2,057 50

Revere Beach Reservation: —

Band,	\$6,690 00	
Repairing band stand,	81 89	
Lighting band stand,	68 92	
Shades,	24 00	
		6,864 81

Stony Brook Reservation: —

Band,	\$446 50	
Tent,	50 00	
Chairs,	32 50	
Lumber,	31 98	
Water cooler,	8 25	
		569 23

Beaver Brook Reservation: —

Band,	\$1,101 40	
Extra police,	18 82	
Use of team,	4 00	
		1,124 22

Charles River Reservation, Riverside Division: —

Band,	\$2,199 90	
Lumber,	54 16	
Lighting band stand,	12 00	
Signs,	12 00	
		2,278 06

Charles River Reservation, Speedway Division: —

Band,	\$1,862 80	
Band stand at Watertown,	\$489 00	
Architects,	50 00	

<i>Amounts carried forward,</i>	\$539 00	\$1,862 80	\$13,844 46	\$25,000 00
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<i>Amounts brought forward,</i>	\$539 00	\$1,862 80	\$13,844 46	\$25,000 00
Lanterns,	23 70			
Lumber,	12 66			
Signs,	6 00			
Glass lights,	1 32			
		582 68		
Extra police,		228 00		
			2,673 48	
Nahant Beach Parkway: —				
Band,	\$1,361 00			
Chairs,	30 00			
Extra police,	21 00			
			1,412 00	
Nantasket Beach Reservation: —				
Band,	\$6,270 00			
Music stands,	21 00			
			6,291 00	
General expense: —				
Printing band concert schedules,	\$32 76			
			32 76	
				24,253 70
Balance,				\$746 30

METROPOLITAN PARKS BOULEVARD MAINTENANCE.

Appropriation Dec. 1, 1907, to Dec. 1, 1908, \$150,235 00

Expenditures.

General expense: —				
Police: —				
Pay rolls,	\$23,219 20			
Equipment,	5,689 89			
		\$28,909 09		
Salaries: —				
General office,	\$9,680 00			
Law department,	713 33			
Engineering department,	2,163 32			
		12,556 65		
Engineering supplies,		85 19		
Rent, lighting and care of offices,		2,993 44		
Telephones,		755 40		
Annual report, one-half,		692 14		
Stationery and printing,		506 83		
Typewriters,		360 25		
Postage, etc.,		351 05		
Travelling,		187 39		
Extra clerical assistance,		180 78		
Maps and books,		168 02		
Filing cabinets, cards, etc.,		119 53		
Automobile and motorcycle fees,		73 30		
Advertising rules,		69 49		
Photographs and slides,		61 25		
Typewriter supplies,		47 75		
Account books,		44 25		
Recording papers,		38 93		
Office repairs,		30 40		
Towel supply,		26 20		
<i>Amounts carried forward,</i>		\$48,257 33		\$150,235 00

<i>Amounts brought forward,</i>	\$48,257 33	\$150,235 00
Spring water,	24 85	
Ice,	23 00	
Office supplies,	17 02	
Report on street railway hearing (Bacon & Burpee),	15 50	
Rent of typewriter,	14 80	
Electric light fixtures,	13 70	
Typewriter repairs,	10 53	
Horse tag straps,	10 00	
Reupholstering chairs,	9 00	
Refinishing desk,	7 00	
Rubber stamps,	5 95	
Screens,	4 92	
Rug,	4 50	
Canvas cover,	4 00	
Covering pipe with asbestos,	3 00	
Soap,	1 32	
Thermometer,	1 25	
	<hr/>	\$48,427 67
Blue Hills Parkway: —		
Labor,	\$2,097 50 ✓	
Teaming,	188 50	
Keep of horses,	10 79	
	<hr/>	\$2,296 79
Street watering or its equivalent,	2,960 07	
Street lighting,	2,624 34	
Resurfacing roadways,	1,999 50	
Crushed stone,	485 03	
Labor and supplies, gypsy and brown-tail moth work,	476 75	
General supplies,	276 64	
Water rates,	57 88	
Trees,	30 00	
Lighting offices,	17 78	
Stationery and printing,	3 75	
Repairs,	1 70	
Express,	25	
	<hr/>	11,230 48
Middlesex Fells Parkway: —		
Labor,	\$5,102 01	
Teaming,	1,375 27	
Keep of horses,	222 57	
	<hr/>	\$6,699 85
Resurfacing roadways,	14,998 74	
Street lighting,	5,610 76	
Street watering or its equivalent,	2,399 88	
Labor and supplies, gypsy and brown-tail moth work,	988 81	
Tar and asphalt mixture,	497 88	
General supplies,	217 03	
Telephones,	92 40	
Sand,	63 00	
Stationery and printing,	49 39	
Trees,	19 50	
Lighting offices,	17 60	
Water rates,	16 41	
Water cooler,	8 55	
Repairs,	1 13	
	<hr/>	31,680 93
<i>Amounts carried forward,</i>	\$91,339 08	\$150,235 00

Amounts brought forward, \$91,339 08 \$150,235 00

Mystic Valley Parkway: —

Labor,	\$3,649 59	
Teaming,	574 33	
Keep of horses,	391 94	
	<hr/>	\$4,615 86
Street lighting,		2,747 84
Labor and supplies, gypsy and brown-tail moth work,		1,999 80
Street watering or its equivalent,		1,076 53
General supplies,		304 31
Cinders,		122 50
Telephones,		84 35
Sand,		22 50
Stationery and printing,		12 00
	<hr/>	10,985 69

Revere Beach Parkway: —

Labor,	\$9,139 73	
Teaming,	112 05	
Keep of horses,	569 93	
	<hr/>	\$9,821 71
Street watering or its equivalent,		6,502 77
Street lighting,		4,064 19
General supplies,		748 30
Crushed stone,		645 06
Trees and guards,		177 40
Loam,		125 00
Labor and supplies, gypsy and brown-tail moth work,		100 00
Sand,		52 50
Stationery and printing,		7 66
Oil suits,		5 33
Water rates,		5 00
Express,		15
	<hr/>	22,255 07

Neponset River Parkway: —

Labor,	\$674 00	
Teaming,	15 00	
	<hr/>	\$689 00
Street watering or its equivalent,		384 45
Street lighting,		166 56
Snow plows,		165 00
General supplies,		40 44
	<hr/>	1,445 45

Nahant Beach Parkway: —

Labor,	\$2,857 95	
Teaming,	63 00	
Keep of horses,	394 62	
	<hr/>	\$3,315 57
Street lighting,		1,142 67
Loam,		300 00
General supplies,		250 59
Street watering or its equivalent,		190 41
Trees,		30 25
Travelling,		18 45
Telephones,		12 58
Stationery and printing,		10 60
Express,		1 60
	<hr/>	5,272 72

Amounts carried forward, \$131,298 01 \$150,235 00

Amounts brought forward, \$131,298 01 \$150,235 00

Fresh Pond Parkway: —

Labor,	\$715 00	
Teaming,	35 00	
	<hr/>	\$750 00
Street watering or its equivalent,	498 70	
Street lighting,	368 50	
Labor and supplies, gypsy and brown-tail moth work,	200 00	
Dressing,	100 00	
Crushed stone,	56 01	
Trees,	48 45	
General supplies,	37 78	
Water rates,	7 75	
	<hr/>	2,067 19

Furnace Brook Parkway: —

Labor,	\$1,628 75	
Teaming,	136 25	
Keep of horses,	11 12	
	<hr/>	\$1,776 12
Street lighting,	1,327 59	
Street watering or its equivalent,	776 32	
General supplies,	139 57	
Shrubs,	64 33	
Sewer assessment,	29 95	
Trees,	13 30	
Lighting offices,	9 70	
Water rates,	9 00	
	<hr/>	4,145 88

Lynnway: —

Labor,	\$5,590 75	
Keep of horses,	14 00	
	<hr/>	\$5,604 75
Street lighting,	864 50	
Street watering or its equivalent,	711 40	
Park seats,	346 50	
General supplies,	209 65	
	<hr/>	7,736 80

Lynn Fells Parkway: —

Labor,	\$865 76	
Teaming,	307 50	
	<hr/>	\$1,173 26
Street lighting,	486 04	
Street watering or its equivalent,	465 65	
General supplies,	242 67	
Snow plows,	110 00	
Express,	9 84	
	<hr/>	2,487 46

Balance, \$4,979 59 \$23,500 00

NANTASKET BEACH MAINTENANCE.

Appropriation Dec. 1, 1907, to Dec. 1, 1908, \$23,500 00

Expenditures.

Labor,	\$4,267 14	
Teaming,	28 15	
Keep of horses,	684 30	
	<hr/>	\$4,979 59
Amounts carried forward,	\$4,979 59	\$23,500 00

<i>Amounts brought forward,</i>	\$4,979 59	\$23,500 00
Police: —		
Pay rolls,	\$11,598 17	
Equipment,	194 22	
	<hr/>	11,792 39
Street lighting,		1,659 52
Laundry alterations,		1,498 95
Street watering or its equivalent,		1,275 02
General supplies,		1,126 53
Rent, superintendent's house,		399 96
Water rates,		322 75
Telephones,		102 09
Freight,		87 93
Mattresses,		64 00
Express,		38 81
Repairs,		30 86
Stationery and printing,		29 18
Row boats,		26 50
Flags,		14 87
		<hr/>
		23,448 95
Balance,		<hr/>
		\$51 05

WELLINGTON BRIDGE MAINTENANCE.

Appropriation Dec. 1, 1907, to Dec. 1, 1908, \$6,857 00

Expenditures.

Labor,	\$2,743 37	
Resurfacing roadway,	2,230 86	
Street lighting,	926 25	
General supplies,	321 50	
Power for draw,	250 00	
Street watering or its equivalent,	249 97	
Telephones,	77 81	
Water rates,	29 52	
Stationery and printing,	7 96	
	<hr/>	6,837 24
Balance,		<hr/>
		\$19 76

METROPOLITAN PARKS EXPENSE FUND.

Balance Dec. 1, 1907,	\$93,105 25
Receipts, Dec. 1, 1907, to Dec. 1, 1908,	90,119 06
	<hr/>
	\$183,224 31

Expenditures.

General expense: —		
Photographs,	\$20 00	
District maps,	17 50	
Blue prints,	9 86	
	<hr/>	\$47 36
Police: —		
Horses,	\$1,300 00	
Motorcycles,	1,239 85	
Signal boxes,	750 00	
Guns and equipment,	486 46	
Motorcycle parts,	330 36	
Motorcycle repairs,	295 38	
	<hr/>	
<i>Amounts carried forward,</i>	\$4,402 05	\$47 36
		\$183,224 31

<i>Amounts brought forward,</i>	\$4,402 05	\$47 36	\$183,224 31
Pistols and equipment,	282 51		
Rent and care of armory and shooting gallery, .	163 00		
Speedometers,	128 25		
Lectures and examination,	109 00		
Batteries,	55 10		
Naphtha,	20 37		
Pay roll,	15 00		
Stop watches,	14 03		
Miscellaneous expenses,	11 18		
		5,200 49	
Engineering: —			
Automobile,	\$1,850 00		
Telephones,	8 42		
		1,858 42	
Blue Hills Reservation: —			
Automobile,	\$900 00		
Architects,	350 00		
Flag staff,	185 00		
Flags,	36 85		
Water rates,	30 30		
Tire,	28 50		
Stove grate,	2 50		
		1,533 15	
Middlesex Fells Reservation: —			
Automobile, one-half cost,	\$537 50		
Rent, superintendent's house,	252 00		
Sheep,	213 35		
Repairs to buildings,	100 47		
Automobile parts and supplies,	99 40		
Furnace,	95 00		
Speedometer,	75 00		
Contribution, cost of fence,	40 15		
Cleaning cesspools, etc.,	26 43		
Water rates,	24 00		
Advertising sale of house,	12 37		
Miscellaneous,	10 65		
		1,486 32	
Revere Beach Reservation: —			
Bath-house: —			
Pay rolls,	\$17,818 99		
Bathing suits,	5,821 45		
Lighting,	2,069 36		
Coal,	1,552 60		
Towels,	1,148 33		
Engine room,	1,017 80		
Fireproofing walls,	975 00		
Paint,	384 41		
Water rates,	349 55		
Stationery,	337 84		
Stockings,	320 70		
Hardware,	237 50		
Architects,	223 75		
Tickets,	162 35		
Lumber,	146 34		
Hose,	96 45		
Bathing caps,	90 00		
Toilet paper,	82 81		
Key bands,	70 45		
Fire extinguishers,	60 90		
Ice,	59 85		
<i>Amounts carried forward,</i>	\$33,026 43	\$10,125 74	\$183,224 31

Amounts brought forward, . . . \$33,026 43

. \$10,125 74 \$183,224 31

Bath-house — Con.

Pipe meters,	59 40
Acids,	53 09
Findings,	43 14
Oil,	43 03
Polish,	36 50
Meter box,	36 00
Medicines and attendance, . . .	35 60
Telephones,	35 27
Brushes,	27 29
Corrugated matting,	27 07
Flags,	26 25
Disinfectant,	26 10
Work on fountains,	25 20
Desk,	25 00
Brooms,	24 50
Repairs,	24 35
Soap,	23 40
Castors,	21 10
Soap tanks,	20 00
Premium on bond,	20 00
Wringers,	18 75
Duck,	17 67
Water coolers,	17 25
Soda,	16 80
Blankets,	16 20
Batteries,	15 84
Crash,	14 40
Uniforms and badges,	13 03
Bathing checks,	12 75
Framing mirrors,	12 25
Postage stamps,	12 00
Clock dials,	10 00
Electric iron,	9 81
Tide cards,	8 00
Cheese cloth,	7 80
Acme sprayers,	7 75
Agate cups,	7 41
Ash barrels,	7 20
Key blanks,	7 08
Gauze,	7 01
Brushes and combs,	7 00
Pails,	7 00
Lamp supplies,	6 60
Baskets,	5 76
Spring water,	5 20
Shoes, officer,	5 00
Disinfectors,	5 00
Pitch,	4 86
Car fares,	4 55
Feather dusters,	4 38
Force pump,	3 75
Mirror shades,	3 30
Gas flatiron,	3 25
Matches,	3 25
Rubber stamps,	3 25
Hose fittings,	3 14
Rat traps,	2 75
Sockets,	2 61
Hose rack,	2 55
Barrel gauge,	2 50

Amounts carried forward, . . . \$33,983 42

\$10,125 74 \$183,224 31

<i>Amounts brought forward,</i>	\$33,983 42	\$10,125 74	\$183,224 31
Bath-house — <i>Con.</i>			
Metal bars,	2 40		
Truck wheels,	2 40		
Photographic plates,	2 30		
Glue,	2 25		
Pictures for nursery,	2 00		
Moulding,	1 96		
Steel springs,	1 92		
Felt,	1 57		
Key rings,	1 50		
Steel stamp,	1 50		
Towel rollers,	1 35		
Plugs,	1 18		
Dust pans,	1 08		
Shovels,	1 04		
Atomizers,	1 00		
Putty knives,	1 00		
Mops,	73		
Miscellaneous,	5 47		
	<hr/>		
	\$34,016 07		
Repairs on bulkhead,	642 32		
Drinking fountain,	158 81		
Driveway, Newell & Cloues,	22 00		
	<hr/>		
		34,839 20	
Stony Brook Reservation: —			
Repairs to buildings,	\$1,163 23		
Water rates,	57 50		
	<hr/>		
		1,220 73	
Beaver Brook Reservation: —			
Repairs to buildings,	\$112 75		
	<hr/>		
		112 75	
Charles River Reservation: —			
Riverside Section: —			
Automobile, part cost,	\$500 00		
Repairs to buildings,	462 85		
Fence, Concord Street Bridge,	261 00		
Pipe, Forest Grove,	157 15		
Rent, superintendent's house,	150 00		
Water rates,	60 55		
	<hr/>		
		1,591 55	
Speedway Section: —			
Automobile, part cost,	\$575 00		
Grading, etc.,	284 73		
Automobile seat,	50 00		
Fence, Maxwell property,	37 50		
	<hr/>		
		947 23	
Neponset River Reservation: —			
Landscape Architects, services,	\$20 00		
	<hr/>		
		20 00	
Mystic River Reservation: —			
Automobile, one-half cost,	\$537 50		
Water rates,	42 00		
Stove grate,	10 00		
Cleaning cesspool,	6 00		
Repairs to buildings,	3 59		
	<hr/>		
		599 09	
Lynn Shore Reservation: —			
Horses,	\$575 00		
Repairs to wall,	165 00		
Drinking fountain,	46 91		
	<hr/>		
<i>Amounts carried forward,</i>	\$786 91	\$49,456 29	\$183,224 31

<i>Amounts brought forward,</i>		\$786 91	\$49,456 29	\$183,224 31
Landscape Architects: —				
Services,	\$39 64			
Expenses,	95			
		40 59		
			827 50	
Winthrop Shore Reservation: —				
Paving bridge,	\$250 00			
			250 00	
Quincy Shore Reservation: —				
Pipe iron fence, Beach Street,	\$267 00			
Grading Beach Street,	21 90			
			288 90	
Blue Hills Parkway: —				
Asphaltoilene, part cost,	\$1,000 00			
			1,000 00	
Middlesex Fells Parkway: —				
Construction: —				
Contract, Rowe & Perini,	\$10,863 04			
Labor and materials,	164 14			
		\$11,027 18		
Loam,		1,775 00		
Changes at Wicklow and Surrey streets,		1,231 19		
Catch basin, Medford,		79 64		
Landscape Architects, services,		25 00		
			14,138 01	
Mystic Valley Parkway: —				
Substation,	\$487 27			
			487 27	
Revere Beach Parkway: —				
Drain, Stower's Court,	\$110 00			
Trench, Everett,	79 00			
Drain pipe,	50 49			
Overpayment, F. W. Sherman,	1 00			
			240 49	
Neponset River Parkway: —				
Landscape Architects: —				
Services,	\$193 46			
Expenses,	5 10			
		\$198 56		
Water rates,		12 00		
			210 56	
Nahant Beach Parkway: —				
Bath-house: —				
Pay rolls,	\$3,935 25			
Addition, stable,	2,332 30			
Paint,	241 77			
Coal,	229 00			
Water rates,	203 49			
Paving blocks,	202 50			
Lighting,	154 70			
Stockings,	61 50			
Toilet paper,	53 25			
Engine room,	50 53			
Telephones,	48 55			
Lumber,	30 80			
Disinfectant,	26 25			
Bathing caps,	24 00			
Tickets,	17 25			
Corrugated matting,	13 92			
Uniforms,	10 51			
<i>Amounts carried forward,</i>	\$7,635 57		\$66,899 02	\$183,224 31

Amounts brought forward, . . . \$7,635 57

\$66,899 02 \$183,224 31

Bath-house — *Con.*

Shade holders,	10 00
Hardware,	8 79
Repairs,	8 25
Grit powder,	8 00
Soap,	8 00
Tide cards,	8 00
Ice,	7 57
Brooms,	7 00
Findings,	6 70
Oil,	6 50
Gong,	5 85
Stationery,	5 42
Baskets,	5 20
Cheese cloth,	4 46
Postage stamps,	4 00
Gauze,	3 83
Brushes,	3 79
Cesspool,	3 60
Broken stone,	2 45
Wringer rolls,	2 25
Ring buoy,	2 07
Medicines and attendance,	1 80
Fuses,	1 75
Mops,	1 65
Sockets,	1 50
Oil stove union,	1 00
Radiator section,	99
Salt,	90
Dust pans,	85
Valuable checks,	50

\$7,768 24

Loam, 87 50

7,855 74

Furnace Brook Parkway: —

Landscape Architects: —

Services,	\$76 30
Expenses,	88

\$77 18

Advertising sale of building, 18 25

Window shades, 7 02

Wiring sub-station, 4 48

106 93

Nantasket Beach Reservation: —

Bath-house: —

Pay rolls,	\$5,591 86
Coal,	1,258 00
Water rates,	497 50
Bathing suits,	294 00
Flag staff,	200 00
Towels,	147 50
Engine room,	101 69
Lighting,	76 54
Architects,	75 00
Ice,	57 38
Valuable envelopes,	49 21
Laundry,	45 50
Tickets,	43 05
Repairs,	34 75
Soaps, etc.,	30 86
Medicines and attendance,	25 65

Amounts carried forward, . . . \$8,528 49

\$74,861 69 \$183,224 31

Amounts brought forward, . . . \$8,528 49 \$74,861 69 \$183,224 31

Bath-house — *Con.*

Paint,	23 28
Uniforms,	21 11
Telephones,	20 28
Disinfectant,	19 00
Cleaning cesspool,	15 00
Findings,	13 49
Hose,	12 25
Bathing caps,	12 00
Fish baskets,	12 00
Crash,	10 00
Brushes,	8 19
Button bags,	6 86
Pails,	6 30
Stationery,	5 10
Postage stamps,	5 00
Hardware,	4 75
Key bands,	4 64
Gauze,	3 90
Brass globes,	3 84
Polish,	2 95
Advertising,	1 50
Rope,	1 50
Drinking cups,	1 23
Dust pans,	1 08
Mop handles,	1 00
Valuable checks,	1 00
Duster,	90
Row locks,	60
Miscellaneous,	1 15
	<hr/>
	\$8,748 39

Engineering: —

Pay rolls,	\$14 25
Expenses,	13 31
	<hr/>
	27 56

Landscape Architects: —

Services,	\$175 38
Expenses,	5 80
	<hr/>
	181 18

Electric wiring,	3,948 38
Hotel alterations,	2,149 07
Laundry machinery,	1,136 50
General repairs,	1,050 72
Engine for power house,	634 00
Loam,	523 05
Barbers chairs and mirrors,	338 00
Repairs, Rockland Café,	297 58
Architects,	277 40
Beds, Rockland Café,	176 00
Shrubs,	144 15
Flag staff,	100 00
Reports on lighting and steam,	70 00
Repairs to roadways,	54 65
Drain pipe rental,	6 00
	<hr/>
	19,862 63
	<hr/>
	94,724 32
	<hr/>
Balance,	\$88,499 99
	<hr/>

METROPOLITAN PARKS TRUST FUNDS.

Balance Dec. 1, 1908, \$978 74

APPENDIX.

SPECIAL REPORTS

ON

NEW BRIDGE ACROSS THE NEPONSET RIVER BETWEEN
BOSTON AND QUINCY,

AND

A BOULEVARD IN BOSTON FROM COLUMBIA ROAD TO
NEPONSET RIVER,

REQUIRED BY CHAPTER 141 OF THE RESOLVES OF THE
LEGISLATURE OF 1908.

REPORT OF THE COMMISSION.

The Metropolitan Park Commission, authorized and directed by chapter 141 of the Resolves of 1908 to investigate the desirability of constructing a new bridge across the Neponset River between the city of Boston and Quincy, and also to consider the advisability and probable expense of taking and constructing a boulevard from Columbia Road to said Neponset River, and to make reports upon these several matters, beg leave to report as follows:—

The resolve under which this report is made is as follows:—

Resolved, That the metropolitan park commission is hereby authorized and directed to investigate the desirability of constructing a new bridge across the Neponset river between the cities of Boston and Quincy at or near the location of the present bridge, and to report the result of the investigations to the next general court not later than the second Monday in January. Said commission shall consider the most suitable location of said bridge with reference to the various uses to which it may be put, and also with reference to any existing or proposed boulevards in the vicinity of either approach to said bridge, and make estimates of the expense of said structure and approaches, including the draw required in said bridge; the commission shall also investigate and make a separate report upon the advisability and probable expense of taking and constructing a boulevard in that part of the city of Boston, formerly Dorchester, from Columbia road at a point east of the Plymouth division of the New York, New Haven and Hartford railroad to said Neponset river. There may be expended from the treasury of the Commonwealth a sum not exceeding twenty-five hundred dollars for the purposes of carrying out the provisions of this resolve. [*Approved June 13, 1908.*]

In pursuance of the authority and direction thus given, a public hearing was duly advertised and held at the rooms of the Commission on July 15, 1908.

Further investigation of the matter has been made by the commission by personal inspection of both the bridge referred to in the resolve and of the entire country between Columbia Road and Neponset River, and by special investigations and report by the landscape architects, Messrs. Olmsted Brothers, and by the engineer of the board, whose reports, accompanied by plans and compiled statements of assessed land values and estimates of cost of construction, are appended hereto.

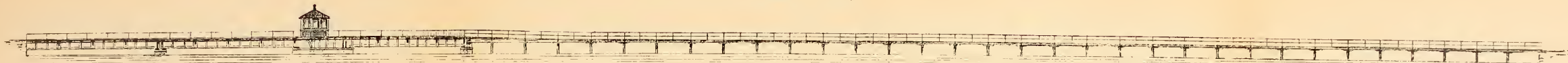
As directed by the resolve, two separate reports are made, as follows:—

First.—Report as to the desirability of constructing a new bridge across Neponset River between Boston and Quincy.

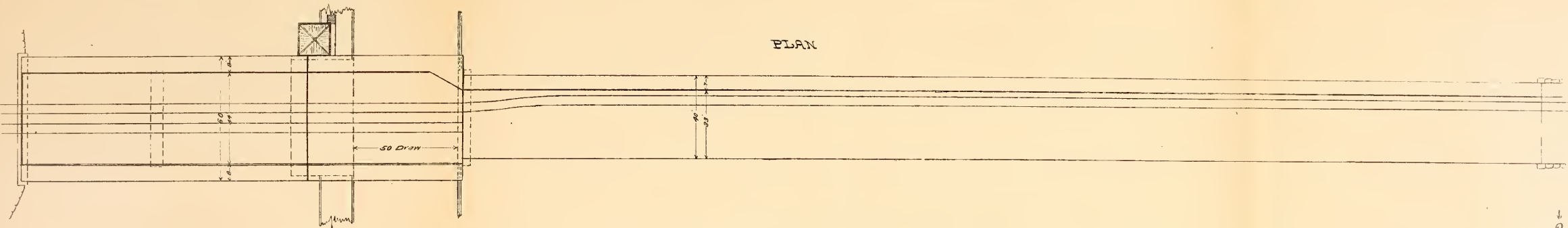
The existing bridge referred to in the resolve connects Neponset Avenue in Boston with Hancock Street in Quincy, and forms part of the main highway between the eastern part of Boston and the cities and towns south and southeast of Neponset River. It has no present connection with any portion of the park system, but forms part of the only direct road by which connection may be made with the park roads to Quincy Shore and to the easterly end of Blue Hill Reservation. It is an old-fashioned pile structure, of which a portion 135 feet long, including the draw, is within and is maintained by the city of Boston; and the remaining portion, 600 feet long, is within and is maintained by the city of Quincy. The Boston portion has a roadway 24 feet wide, with one sidewalk five feet wide, which narrow to 22 feet and 3 feet respectively across the draw. The Quincy portion has a roadway 32 feet wide, with sidewalk 7 feet wide. The draw is a two-leaf hand-lift steel bascule draw, of 38 feet opening for vessels, above a channel which, curving 75 feet nearer the Boston side of the river than the draw opening of the new railroad bridge a short distance below, makes the passage of vessels very difficult.

The Boston portion of the bridge is in a bad condition, and is likely soon to become unsafe. The Quincy portion of the bridge is in fair condition, but will require repairs within

ELEVATION



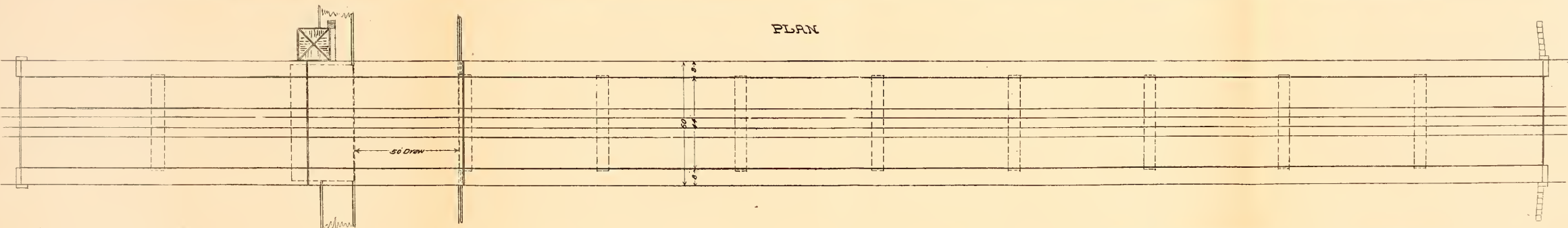
PLAN



ELEVATION



PLAN



Plan accompanying Report of the
Metropolitan Park Commission to the
General Court of 1909, under Chapter
141 of the Resolves of the Legislature
for the year 1908.

Sketch of PROPOSED BRIDGE over the NEPONSET RIVER

BETWEEN
BOSTON & QUINCY

Nov 12, 1908.

J. R. Hublin

Helotype Co., Boston.

a few years at an estimated cost of \$7,500, which the engineer estimates is an amount equal to the entire present value of this portion of the bridge.

Upon these facts and after personal inspection of the bridge and its approaches, the Board is of the opinion that it is desirable that the entire bridge be rebuilt at once upon its present location of a width of 60 feet, with steel girders upon concrete or stone piers; and that the sidewalks be 8 feet wide; the roadway 44 feet wide, paved with wooden block, with location for two car tracks in the center; and that the draw be relocated over a new channel in alignment with the railroad bridge, and be built of the single-leaf rolling type, operated by electricity, with an opening 50 feet wide for vessels. It is recognized, however, that only the Boston portion is unsafe and inadequate for present needs. If, for this reason, it be deemed advisable to postpone rebuilding the Quincy portion of the draw, the Board recommends that the Boston portion be rebuilt at once in the form suggested above, and that at the same time the channel be relocated and enough of the Quincy portion be rebuilt to permit of a relocation of the drawbridge over the new channel and in alignment with the railroad bridge draw below.

The Board has given careful consideration to the relation of this bridge to any existing or proposed boulevards in its vicinity, and is of the opinion that, if rebuilt in its present location, as suggested, and with double-rail location for cars in the center, and paved with wooden block, it will furnish comfortable and adequate accommodations for all pleasure travel which now needs to be provided for, if there is any extension of the boulevard to its neighborhood.

Second. — Report as to the advisability and probable expense of taking and constructing a boulevard in that part of the city of Boston from Columbia Road, at a point east of the Plymouth Division of the New York, New Haven & Hartford Railroad to said Neponset River.

The subject matter of this second report is complex, and must be considered with a full understanding of the relation of the proposed boulevard to the park systems of the

city of Boston, and of the Metropolitan District. Inspection of the territory referred to, and consideration of the reports which are submitted herewith, convince the Board that it is possible to present only general information as to the feasibility and probable cost of the proposed boulevard.

A general map of the Metropolitan Parks District, showing the metropolitan and local parks and parkways colored in green, and another map on larger scale, showing the lands unoccupied by buildings with the locality in which the boulevard is suggested, accompany the engineer's report submitted herewith. Examination of these maps shows that Columbia Road is a parkway of the city of Boston, extending from Marine Park to Franklin Park, and a connection with the parkway to Bussey Woods and thence northerly by Jamaica Pond and the Fenway to Charles River. For a considerable distance it parallels Neponset River midway between that river and the business center of Boston. From Bussey Woods land is secured for West Roxbury Parkway to Stony Brook Woods, and Neponset River Parkway to the westerly end of the Blue Hills Reservation. From Franklin Park the double roadway of Blue Hill Avenue is, in effect and practical convenience, a parkway to Mattapan Bridge, where it connects with Blue Hills Parkway to the center of Blue Hills Reservation. East of Franklin Park, however, no road convenient for pleasure travel exists from Columbia Road toward Neponset River. From a point just beyond the bridge referred to in the resolve, Quincy Shore Reservation and land acquired for Furnace Brook Parkway lead to the easterly end of Blue Hills Reservation. At the point referred to in the resolve as the crossing of Columbia Road of the Plymouth Division of the New York, New Haven & Hartford Railroad, a broad single roadway for mixed travel is being built by the city of Boston upon the old location of the railroad northerly to a junction with Dorchester Avenue at West Seventh Street in South Boston, from which point it is rumored that a widening of Dorchester Avenue to the Dover Street and Atlantic Avenue bridges over the south cove is contemplated. These improvements, if carried out, will provide a greatly improved avenue

from the Plymouth Division crossing to the center of the wholesale business section of Boston.

From the Plymouth Division crossing of Columbia Road south to Neponset River there are almost continuous areas of land on both sides of the railroad which are in large measure unoccupied by dwellings or business enterprises, and are, in their present condition, unsightly and perhaps unsanitary. The distance to Neponset River is approximately three miles. West of the railroad no commercial development of any magnitude seems possible, and the unoccupied areas of marsh and salt creek are, in their present condition, a barrier to any development. This condition will be made worse rather than better by the proposed elevation of tracks by the railroad to provide for abolishment of grade crossing. East of the railroad the unoccupied areas of marsh and tidal flats are broken by the high ground and attractive residential sections at Savin Hill and opposite Harrison Square. They seem likely to be used chiefly for manufacturing and commercial development incident to neighborhood to railroad and tide water, but this development seems remote. At present they are singularly undeveloped and removed from any conveniences of steam or electric railroad or even good roads. The condition of the lands on both sides of the railroad suggests the possibility of improvement of the entire unoccupied areas by the Commonwealth and city, and their development to meet the future needs.

So far as the parkway or boulevard question is concerned, however, the unoccupied condition of these lands suggests the possibility of a parkway on either the westerly side or on the easterly side of the railroad; and the landscape architects have presented plans and a report which, submitted herewith, may be taken to indicate in general form the respective merits and possibility of each road; and the engineer has presented estimates, based upon these several routes, which indicate approximately the probable expense of each route. It is evident, however, that if either route should be adopted in general form, or if the entire question should be left open, the details and exact location of route

would still have to be more accurately determined upon, and that the cost would, therefore, vary more or less from the estimates now given.

The following general conclusions, however, have been reached:—

There is no parkway or boulevard south from Columbia Road between Blue Hill Avenue and the harbor. The highways between the same points are unattractive for pleasure travel, and already rather crowded by traffic and electric car lines, and east of the railroad insufficient for any future development of the region. Opportunity for a parkway without removal of many buildings exists east of the railroad for the entire distance to Neponset River, and west of the railroad for a large part of the distance. If a westerly route should be taken for part of the distance, it would probably, for the portion of the distance between the Plymouth Division crossing and a point about opposite Harrison Square, coincide with the suggested location for an easterly route, and then cross the railroad and run between the proposed high embankment of the railroad and the hills on the west. As traffic and electric car transportation on the westerly side of the railroad are provided for in Neponset Avenue near by, and as no great increase in business and population can be expected along this location, a boulevard on the westerly side of the railroad need provide only for pleasure travel by a single roadway, two sidewalks and grass spaces of a total width of 70 feet. If an easterly route be chosen, it would run largely through an undeveloped territory remote from direct highway and electric car communication with the city, and therefore it would need to be of a form which would provide for traffic road and reserve space for electric cars and a pleasure driveway, and possibly reserve space between it and the steam railroad; and, as the region through which it would run is one which now has possibilities of railroad connection for manufacturing business and harbor frontage for commercial development, the boulevard or parkway ought to preserve these by such bridges as would permit spur tracks from the railroad ample to provide for the possibilities of its development.

The plans of the landscape architects have been taken for the basis of estimate, although the Board is not prepared to express entire approval of all details of their suggestions. The estimates have been made by the Engineer, and include assessed value of the land by the different routes suggested by the Landscape Architects, and estimates of cost of construction of these several routes, and also a further estimate added by him of assessed value of land, and cost of construction according to a variation of route suggested by the Engineer himself. These estimates will be found in the Engineer's report.

Of the routes suggested, the Commission is inclined to the opinion that the easterly one is most desirable. It would preserve more views of the harbor and of the considerable open spaces and consequent variety of scenery than the westerly route, and would furnish convenient approaches and hasten the development of a region which now seems so inconvenient of access and lacking in tendency to development that its future must be deemed very uncertain.

The opportunity for such a boulevard as that suggested by the resolve undoubtedly exists, and if seized upon at this time would give the nearest approach to the easterly part of the business section of Boston and by Columbia Road to all the park system of Boston and the Metropolitan District from the southeasterly part of the district and Commonwealth that can ever be secured. The desirability of such connection and approach is obvious. The financial ability and willingness of the district to secure the approach is a question which depends upon the willingness of the district to incur at least the estimated cost of now securing the land, and the future cost of construction.

Respectfully submitted,

WILLIAM B. DE LAS CASAS.
EDWIN U. CURTIS.
DAVID N. SKILLINGS.
ELLERTON P. WHITNEY.
EVERETT C. BENTON.

REPORT OF THE LANDSCAPE ARCHITECTS.

Mr. JOHN WOODBURY, *Secretary, Metropolitan Park Commission,
14 Beacon Street, Boston, Mass.*

DEAR SIR: — Pursuant to your Order No. 400, we have made a careful personal examination of the territory lying between Columbia Road and Neponset River, and beg to report as follows in regard to a parkway connecting those points.

ROUTE.

There appears to be no reason for radical departures at any point from the route proposed by the City Engineer's office between Columbia Road and Freeport Street near the north end of Beach Street. South of that point two principal alternatives present themselves, with several minor variations.

The first route would cross under the railroad just south of Harrison Square Station, as proposed by the City Engineer's office, and turn southward again along the line of Brook Street and the intercepting sewer, assuming that the City Engineer's plan, slightly modified, is carried out as far as Harrison Square Station. With the exception of a few wooden buildings near Harrison Square Station and a few comparatively inexpensive wooden houses near Tolman Street just north of the Neponset Playground, this route runs through cheap vacant property all the way to the plexus of houses and streets near Neponset Bridge. It is almost certainly the cheapest as regards land damages. After crossing to the west side of the railroad there is some flexibility as to location, and the precise route would have to depend largely on the attitude of the various land owners. The route indicated on the accompanying plan seems likely

to be about the cheapest, and is probably the most agreeable line that could be obtained on this side of the railroad. A location following more closely parallel to the railroad would leave a number of awkward-shaped pieces of land between it and the intercepting sewer right of way, would make an unpleasantly sharp bend after crossing under the railroad, and would cause rather heavy damages by cutting off a large part of the Coffin Valve Company's plant.

Any possible route on the west side of the railroad is open to the objection of cutting through the Neponset Playground and seriously injuring it; but on the whole it seems less objectionable to strike boldly through on the line of Route No. 1 than to hug closer to the railroad, because the latter would leave the detached piece of the playground so narrow as to be of little value, whereas the former would permit the construction of a good-sized running track and athletic field between the proposed route and the railroad.

A variant which was examined and rejected is to widen Freeport Street from the point where the above route crosses it just west of Pope's Hill Station to Neponset Avenue, thence widen Neponset Avenue to the angle just north of Chickatawbut Street, and thence continuing in nearly a straight line reach the vacant salt marsh land west of Neponset Avenue and south of a suggested street, and so by a straight line across the marsh and the river to the south end of the present bridge.

The second route follows Freeport Street from the point where the City Engineer's plan crosses it to the present drawbridge over Tenean Creek; thence runs along the shore two blocks east of Tenean Street till it meets Fulton Street; and thence along the vacant north side of that street, over the railroad, and along the south edge of the Neponset Playground, where it joins the location of the route first described.

The alternative of following, close to the east side of the railroad tracks, south of Harrison Square Station, seems to us not worthy of serious consideration. It would heavily damage what appears to be the most valuable residential property in the neighborhood, and on account of the prox-

imity of the railroad it would be less agreeable than either of the other routes.

A variant of the second route would swing west from Freeport Street after passing Capen Street and follow the westerly margin of the shallow tidal basin of Tenean Creek, which is closed in by Freeport Street, and thence run south along the line of Tenean Street. If it should prove impossible to bring about the closing of the drawbridge where Freeport Street now crosses the creek, this variant would have the advantage of no drawbridge to maintain; but we can hardly think that this drawbridge will be permanently maintained, because the basin to which it leads is very small and shallow, and appears to be used almost exclusively by motor boats, which would not be troubled by the substitution of a drawless bridge of reasonable head room. Moreover, if the Freeport Street draw should have to be retained indefinitely and kept in operation, the maintenance charges have got to be incurred by the community anyhow, and there would be no great economy in building a separate parkway bridge without a draw a short distance away while the expense of the draw continues in its present location. Furthermore, a location along the line of Tenean Street, if widened on the east, would wipe out a new file factory, and strike recent purchases of the New York, New Haven & Hartford Railroad. But, apart from the smallness of the land damages that may be counted on if the outer route is followed, there is the immense advantage of occupying the shore front.

While it is probable that pretty much all of the shore front from South Boston to the Neponset River will be used for commercial purposes sooner or later, and that the beautiful outlook now to be obtained from the shore will be radically changed in character and commercialized, it is also true that between the several groups of wharves on private property it will be possible to maintain most interesting views of the harbor and its activities from a shore front driveway at points where the riparian rights are controlled by the public. At all events, it can be asserted positively that except for such views there is and will be almost nothing of beauty or attractiveness to be found along the route of the proposed

“parkway” from one end to the other. And if it should be deemed necessary in the course of time to convert every foot of the shore into wharves and to have no public way at the water’s edge at any point, it is nevertheless a sound public policy that will put the control of that commercial development as much as possible in the hands of the Commonwealth.

In other words, until the shore is all needed for wharves, the margin of its unoccupied parts is by far the most attractive place for an important thoroughfare; and when it shall be needed for wharves, it will be much to the public advantage if the shore and the riparian rights are in the hands of the Commonwealth. Therefore, unless the second route should prove to be much more expensive than the first, which seems on the whole improbable, there are very strong arguments in its favor. As drawn, it involves the taking of no improved water-front property whatever.

Another variant on the second route is shown on a rider. This variant contemplates taking the Dorchester Yacht Club riparian rights and building a new sea wall, instead of cutting back into the lots on the landward side of Freeport Street. The property of the Dorchester Yacht Club has no buildings upon it that cannot be overlooked from the street, and it would be highly desirable to continue this condition, because the view from this point is the best to be obtained along the whole route. Therefore, if it should prove to be not much more expensive to take the riparian rights of the Dorchester Yacht Club (giving them back a perpetual lease under such restrictions as would confine their buildings as at present, to a height that can be overlooked from this street level) than to widen the street on the westerly side, it would certainly be preferable to obtain such control of this frontage. It is necessary, however, to take into account the considerable extra cost of construction involved in a new sea wall of the height here required; and it is even possible that it might be as cheap to widen on the west side of the street and pay in addition for a restriction against high buildings on the Dorchester Yacht Club property, as to widen on the east.

In regard to the length of the two main routes under con-

sideration, we find from scaled measurements that route No. 2 is about 80 feet shorter than route No. 1; the former being approximately 8,520 feet from the point of deviation at Freeport Street to the Neponset River, and the latter approximately 8,600 feet.

TREATMENT AT THE NEPONSET BRIDGE APPROACH.

There appears to be no justification for a radical change in the location of the bridge, but for the sake of economy it would be desirable to shift the location slightly, so as to avoid the large expense of erecting a temporary bridge during construction. Assuming a width of 60 feet for the bridge, we have made our study on the presumption that the axis of Neponset Avenue and bridge would be bent slightly to the west at its intersection with Quincy Shore Drive, extended, and would strike the north shore of the river about 50 feet west of the present center of the bridge at that point. This would permit of the construction of the greater part of the new bridge previous to the demolition of the present bridge. This change in alignment would involve certain complications in dealing with the land owners south of the river, portions of the present highway having to be abandoned to owners on the east side, while land on the west side will have to be taken for the new location; but we feel that the exigencies of the case at the northerly end of the new axis, where the new parkway and Neponset Avenue connect, justify the expense. We shall refer later in this report to the termination of this axis.

Between the north end of the bridge and Walnut Street the lots on both sides of Neponset Avenue are occupied by the poorest and cheapest of old wooden buildings. The west side, north of the car barns, is flanked by a row of little booths and shanty-like houses, occupying extremely shallow lots upon which it is impossible that satisfactory buildings will ever be erected. On the east side, north of the wharf property, many of the lots are shallow, with small back lots behind them reached by narrow private ways, and the whole aspect of the property is one of decay, neglect and stagnation, although the property on what one would naturally call the

back streets of the neighborhood is in a fairly prosperous-looking condition. Under the circumstances, we believe it would be much less costly than would naturally be supposed, from a first glance at the map or even a first examination on the ground of the fully occupied frontage of Neponset Avenue, to make a bold cutting right through this property; and, judging from experiences elsewhere in the district, it may be predicted with confidence that if only a narrow opening is made through such property, leaving on each side of the improvement a frontage of small lots and fragments of lots occupied by a wretched class of buildings, in the hands of small owners who are probably unable or unwilling to develop and maintain a good class of improvements, the result will be most unsatisfactory from the point of view of the community as a whole. Not only will it be unsatisfactory in appearance, but the increase in adjacent values which ought to be brought about by such an improvement will be retarded indefinitely by the poor character of the left-over buildings and the stagnant attitude of their owners.

It is for these reasons that we recommend the acquisition of more property at this point than would be absolutely necessary to provide a right of way for a road or street of the minimum practicable width, and the formation of a respectable public square at the point where the proposed parkway and Neponset Avenue join to cross the bridge. Both for practical and for æsthetic reasons, we suggest that in due course of time the city of Boston fire engine house, which now faces upon the narrow back way of Walnut Street, be rebuilt upon the triangular plot that would be left at the north end of the square. If properly designed, with a good tower, such a building would form a most agreeable terminus for the vista of the long bridge, and give character to the square; while the large open space in front of it would be of decided practical advantage, as giving good clearance and turning space for the apparatus in rushing out to respond to alarms. Until the space is needed by the city for this purpose, or possibly for some other public building, it should be kept as an open park space, its acquisition being justified by the immense improvement which its control will effect

upon the proposed parkway, as compared with the result of leaving at this conspicuous point a small triangle of miserable little wooden buildings.

The same arguments apply to the suggested acquisition of the row of shallow shanty lots on the west side of Neponset Avenue, where it forms the side of the proposed square. In order to secure anything but a miserable cramped and squalid appearance, it is essential that the very narrow westerly sidewalk of Neponset Avenue at this point be widened and planted with trees. It would be very undesirable to widen it by projecting into the line of the roadway, as seen in approaching the bridge from the north on Neponset Avenue; and, taking this into account along with the desirability of wiping out the shanties, there seems to be full justification for retaining the present curb line and widening back onto these lots. They are so shallow that the major part of them could properly be used for sidewalk and planting space, and the control of the remainder by the Commonwealth would enable the Commission, upon the development of the undivided vacant land behind, to exercise a reasonable control over the character of buildings erected on this frontage. A similar control could and should be exercised as to the eastern frontage of the square.

WIDTH AND CROSS-SECTION OF PROPOSED PARKWAY.

It is apparent that the chief use of the proposed route will be as the main thoroughfare for automobiles and other through road traffic from points on the South Shore, from practically the whole of Plymouth and Barnstable counties, to Boston, to Cambridge, to all northern suburbs lying east of the Middlesex Fells and to the whole of the North Shore. It connects by the Columbia Road bridge across the Plymouth Division tracks with Massachusetts Avenue, which leads directly into the Back Bay district and to Cambridge and Somerville, and so to Fellsway and the Revere Beach Parkway; and it connects through Old Colony Avenue directly with the heart of the city, and by way of Atlantic Avenue and the ferries reaches the shortest route to Revere Beach, the Lynn Shore and the automobile route of the North Shore.

It will be largely used, therefore, by automobiles; but there will be a strong and increasing demand for its use by heavy teams, especially when, in course of time, the commercial development of the water front south of South Boston becomes greater, and there are larger industrial developments in Dorchester, Quincy, Hingham and Weymouth. The fact that it will be *the* water front thoroughfare of the southern Metropolitan District, with wharves on the east of it and the city on the west, makes it inevitable that it should become a great traffic thoroughfare, unless it should be duplicated by another such thoroughfare, for heavy traffic only, through the same district. In other words, it is likely to become in time the Atlantic Avenue of Greater Boston, besides being a direct through route for a large amount of suburban and long-distance automobile travel. Atlantic Avenue is already regarded as inadequate in width; and West Street, New York, is at times congested, with a width of 150 feet and no through travel of importance. Sooner or later electric car tracks will be demanded both for local service to the territory east of the railroad and as a relief line for through cars carrying Quincy passengers, the present route being crooked, and running through streets liable to become seriously congested. Under the circumstances, it would be very short-sighted to allow a less width than 120 feet throughout, although there is no occasion for constructing and maintaining a proportionate width of roadway at the present time.

We append a sketch suggesting typical sections: (A) for immediate construction with a 30-foot roadway and two side-walks; and (B) for expanding the capacity of the thoroughfare when required by widening the roadway to 45 feet, putting in car tracks on a side location separate from the main road, with opportunity for wagons to reach the abutting property on the other side of the cars.

Respectfully submitted, .

(Signed) OLMSTED BROTHERS.

Nov. 10, 1908.

REPORT OF THE ENGINEER.

JOHN WOODBURY, Esq., *Secretary, Metropolitan Park Commission.*

DEAR SIR:— I beg to submit the following report on the desirability of constructing a new bridge across the Neponset River between the cities of Boston and Quincy, at or near the location of the present bridge, with estimate of cost; also, estimate of cost of proposed Old Colony Boulevard from the point where Columbia Road crosses the Plymouth Division of the New York, New Haven & Hartford Railroad to the Neponset River Bridge.

NEPONSET RIVER BRIDGE.

The existing bridge at this location is a pile and timber structure, with a steel two-leaf bascule draw. The width of the pile and timber structure on the Boston side of the draw is 30 feet, containing a 5-foot walk and 24-foot roadway; the width of the draw is 25 feet, with a 22-foot roadway; and the width of the pile and timber structure on the Quincy side of the draw is 40 feet, containing a 7-foot walk and a 32-foot roadway. The width of the draw opening for vessels is 38 feet. A single track for electric cars is laid on the northerly side of the roadway.

The condition of the drawbridge is very bad, and likely soon to become unsafe. Its width is not sufficient for the present traffic, and congestion often results. The draw piers are in very bad condition, the northerly one being almost entirely destroyed.

The condition of the pile and timber structure on the Boston side of the draw is very poor, and will require extensive repairs or practically rebuilding in a very short time. This portion of the bridge also is not of sufficient width for the existing traffic.

The pile and timber structure on the Quincy side of the draw was built in 1889, at a total cost of about \$20,000. It is at present in fair condition, except the fences, wheel guards, walks and roadway planking and portions of the deck planking. These parts, except the deck planking, will probably require renewal within two years, at an estimated cost of \$3,200. It will probably be necessary to renew most of the deck planking within four or five years, at an estimated cost of about \$4,300.

The value of the balance of the structure, assuming it as new, would be about \$12,500, and, as it has already had fully one-half of its life, the value of the whole structure as it stands at present is between \$6,000 and \$7,000.

The existing draw opening in the bridge is about 75 feet west of the line of the draw opening in the new railroad bridge just below, and this makes the passage of vessels from one draw to the other exceedingly difficult, especially as the current at this point runs swiftly.

The boundary line between the cities of Boston and Quincy is 14 feet east of the easterly side of the draw opening, and therefore the existing draw is wholly within the city of Boston and is maintained by Boston.

Taking into consideration the facts hereinbefore stated, I would recommend that an entirely new bridge be constructed from the Boston shore to the Quincy shore; that the new bridge be of steel plate girder type, on stone and concrete masonry piers and abutments; that it be 60 feet in width, containing two 8-foot walks and a 44-foot roadway with double car track location in the center, and the roadway to be paved with wooden block pavement; that a single-leaf, rolling-lift type of drawbridge, operated by electricity, be constructed, with a draw opening 50 feet in width, for vessels; and that the new draw be located opposite the draw of the railroad bridge, or about 75 feet east of the present draw in the old bridge, and a new channel dredged for same.

The estimated total cost of a bridge as above described, including draw on new location, with incidental dredging, new water pipe siphon and temporary bridge during construction, is \$350,000.

It would be possible to construct the drawbridge on the new location and the two spans of stationary bridge on the Boston side, and connect to the present pile and timber structure belonging to the city of Quincy. The estimated cost of doing this work is \$200,000. But, as before stated, the present value of the Quincy portion of the bridge is only between \$6,000 and \$7,000, and the estimated cost of connecting with this portion would be about \$4,000; also, the cost of constructing this portion of the new bridge independently, some time in the future, would be considerably greater than if it should be built at the same time as the draw and Boston portion. This method of construction would also be somewhat unsightly.

If the new drawbridge should be located as herein recommended, it would be well to change the boundary line between Boston and Quincy so that it would be in the center of the new channel.

I submit herewith a sketch showing the proposed bridge as recommended in this report; also, as it would appear if only the draw and Boston approach were built, and connection made with the existing structure in Quincy.

OLD COLONY BOULEVARD.

The costs of land are based upon the assessed values obtained from the assessors of the city of Boston, and the routes are those shown on plan prepared by Olmsted Brothers, Landscape Architects, dated Nov. 10, 1908.

From Columbia Road to Freeport Street the same route is used for all estimates, — that running parallel to and just easterly of the Plymouth Division of the New York, New Haven & Hartford Railroad.

Route No. 1, from Freeport Street to Neponset River, follows the easterly side of the railroad to Park Street, where it crosses underneath, in accordance with the proposed elevation of the tracks at this point, and runs practically parallel to the railroad and westerly therefrom from 100 to 400 feet.

Route No. 2, easterly route, runs along Freeport Street to the drawbridge over Tenean Creek, thence along the shore to Fulton Street and along Fulton Street to the railroad.

which is crossed by bridge overhead, and joining route No. 1 at its junction with Walnut Street.

Route No. 3, which is not shown on the Landscape Architects' plan, runs along Freeport Street the same location as route No. 2 as far as Mill Street, where it turns to the right and follows the westerly side of creek, crossing the creek near the present railroad bridge and thence to Tenean Street and along this street to its junction with route No. 2 at the bridge over the railroad.

The total distance from Columbia Road to Neponset River is about 14,500 feet, — a little less than 3 miles.

COLUMBIA ROAD TO NEPONSET RIVER.

Route No. 1, Westerly Route.

Land,	.	.	.	.	.	.	.	.	.	.	\$311,300
Construction,	.	.	.	.	.	.	.	.	.	.	687,500
Total,	.	.	.	.	.	.	.	.	.	.	\$998,800

Route No. 2, Easterly Route.

Land,	.	.	.	.	.	.	.	.	.	.	\$304,400
Construction,	.	.	.	.	.	.	.	.	.	.	993,600
Total,	.	.	.	.	.	.	.	.	.	.	\$1,298,000

Route No. 2, Easterly Route, Alternative. (Modified to run Easterly of Freeport Street near Mill Street.)

Land,	.	.	.	.	.	.	.	.	.	.	\$285,900
Construction,	.	.	.	.	.	.	.	.	.	.	1,068,600
Total,	.	.	.	.	.	.	.	.	.	.	\$1,354,500

Route No. 3, Intermediate Route.

Land,	.	.	.	.	.	.	.	.	.	.	\$292,900
Construction,	.	.	.	.	.	.	.	.	.	.	705,600
Total,	.	.	.	.	.	.	.	.	.	.	\$998,500

The above estimates do not include the land along the westerly side of Neponset Avenue from its junction with Walnut Street to Neponset River, which it is recommended in the Architects' report should be acquired.

The assessed value of this land, exclusive of the two large car barns of the Boston Elevated Railway Company and the Old Colony Street Railway Company, is \$26,000.

The property of the Boston Elevated Railway Company is assessed for \$75,000, and only a portion along the front of this would be necessary.

The property of the Old Colony Street Railway Company is assessed for \$15,000, and would be practically all taken.

Accompanying this report are two lithographs: one of the Metropolitan District, with the routes of the proposed boulevard shown in red; the other, on a larger scale, of portion of the city of Boston through which proposed boulevard runs showing the unoccupied land in this section.

Respectfully submitted,

(Signed) JOHN R. RABLIN,

Engineer.

DEC. 21, 1908.

FINANCIAL STATEMENT.

Appropriation, chapter 141, Acts of 1908 (Old Colony Parkway),		\$2,500 00
Expenditures: —		
Bacon & Burpee, stenographers,	\$31 25	
Boston American, advertising hearing,	15 00	
Boston Daily Advertiser, advertising hearing,	27 00	
Boston Herald Company, advertising hearing,	31 05	
Boston Journal, advertising hearing,	21 60	
Boston Transcript Company, advertising hearing,	18 75	
Boston Traveler Company, advertising hearing,	22 50	
Dorchester Beacon, advertising hearing,	8 00	
Globe Newspaper Company, advertising hearing,	26 70	
Post Publishing Company, advertising hearing,	22 50	
George W. Prescott and Son (Quincy Daily Ledger), advertising hearing,	7 50	
Olmsted Brothers, services and expenses,	348 20	
Engineering department, pay rolls,	297 66	
Walker Lithograph and Publishing Company, maps,	20 00	
	<hr/>	897 71
Balance of appropriation unexpended,		\$1,602 29

500 SCALE 2000 Ft.

Jan. 11, 1909.

